WILDLIFE RESPONSE PLAN
for California

APPENDICES:

Appendix I: REFERENCE MATERIALS
- a. List of Wildlife Reference Documents
- b. Interagency Agreements
- c. List of Acronyms used in the Wildlife Response Plan

Appendix II: OILED WILDLIFE CARE NETWORK and VOLUNTEERS
- a. OWCN Mission and History
- b. Volunteers in Wildlife Operations

Appendix III: SPECIAL PROCEDURES
- a. Wildlife Intake Unit Protocols (& Forms)
  - Chain of Custody Intake Log
  - Live Bird/Mammal Log
  - Dead Bird/Mammal Log
  - Codes for OWCN/OSWRT Live & Dead Bird/Mammal Logs
  - Species Codes and Status
- b. Wildlife Hazing Plan & Equipment Resource Lists
- c. Sea Otter Oil Spill Contingency Plan

Appendix IV: FORMS
- a. Wildlife Reconnaissance Survey Form: Shoreline or On-Water Observations
- b. OWCN Oiled Bird Intake Form
- c. OWCN Oiled Bird Daily Progress Form

APPENDIX Ia

List of Wildlife Reference Documents:

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APPENDIX Ib

INTERAGENCY AGREEMENTS

1. Memorandum of Understanding Designating California Department of Fish and Game as Primary Contact for Fish and Wildlife Issues in the Event of Oil or Toxic Substance Spills within the State of California

2. Cooperative Agreement Between the California Department of Fish and Game and U.S. Fish and Wildlife Service Endangered and Threatened Fish, Wildlife and Plants

3. Memorandum of Understanding Between the California Department of Fish and Game Office of Oil Spill Prevention and Response and the National Marine Fisheries Service Southwest Region Regarding the California Marine Mammal Stranding Network and the Oiled Wildlife Care Network

MEMORANDUM OF UNDERSTANDING

DESIGNATING CALIFORNIA DEPARTMENT OF FISH AND GAME

AS PRIMARY CONTACT FOR FISH AND WILDLIFE ISSUES

IN THE EVENT OF OIL OR TOXIC SUBSTANCE SPILLS

WITHIN THE STATE OF CALIFORNIA

Background:

Oil or toxic substance spills require rapid, efficient response and coordinated clean up to minimize their effects on both human and wildlife and fisheries resources. The United States Coast Guard has been given the primary responsibility to respond to major oil or toxic material spill within the marine environment. The Environmental Protection Agency has been designated the lead agency to respond to major spills in inland areas. A Regional Response Team plans for and facilitates the rapid response to major spills or to spills which have no designated "responsible party." Interagency cooperation and response is coordinated by an On-Scene-Coordinator from the United States Coast Guard or the Environmental Protection Agency who must communicate rapidly and efficiently with various local, State and Federal agencies to minimize damage and facilitate clean up efforts. On occasion, the On-Scene-Coordinator may be a designate of the "responsible party" who may also need to communicate with agencies with natural resource trust responsibilities.

Trust responsibilities for certain wildlife resources and their habitats, in the event of an oil or toxic spill are clearly given to the U.S. Fish and Wildlife Service (Service) through several legislative acts and regulations associated with the acts (Comprehensive Environmental Response Compensation and Liability Act, Clean Water Act, National Oil and Hazardous Substances Contingency Plan). The California Department of Fish and Game also has trust responsibilities for wildlife and fisheries resources within the State boundaries under various State statutes. Because of overlapping areas of responsibility for certain endangered species, migratory birds and migratory fishes which may be impacted by a spill event, both agencies are responsible for responding. To facilitate the most efficient and effective coordination of response to an ongoing operation being conducted by the On-Scene-Coordinator, a lead agency represented by a single individual coordinator should be designated as the primary contact for advice concerning fish and wildlife resources during a natural resources emergency situation. Additionally, issues of resource commitment and legal permits to handle wildlife need to be addressed as well as cooperative roles in damage assessment to natural resources.

Memorandum of Understanding

(A) Purpose:

The purpose of this Memorandum of Understanding between the Service and California Department of Fish and Game is to designate for the On-Scene-Coordinator a primary contact person who can respond within certain designated limits of authority concerning fish and wildlife resources in the event of an oil or toxic material-spill within the State of California and its coastal habitats.

(B) The specific provisions of this Memorandum of Understanding are:

(1) California Department of Fish and Game will designate a primary contact person for the On-Scene-Coordinator. The primary contact person will advise on and coordinate activities related to fish and wildlife problems resulting from a spill and:

(a) Give advice and direction to minimize or prevent damage to wildlife resources during clean up operations.

(b) Locate, select and coordinate efforts of qualified private groups to collect and care for injured birds or mammals and oversee the adherence to permit conditions for both Federal and State wildlife permits.

(c) Immediately contact appropriate Service area response coordinators and the Environmental Contaminants Coordinator, Regional Office and inform them of the' spill event if migratory birds, endangered or threatened species or Service-administered lands are threatened or impacted.

(d) Continue to update the above personnel of significant happenings related to the event.

(e) Maintain close communications with the designated Service field response advisor and communicate action requests by the Service to the On-Scene-Coordinator or from the On-Scene-Coordinator to the Service representative.

(f) Subject to permit, reporting, and other requirements of Federal law, provide for the collection of samples or data on impacted wildlife during salvage or emergency operations so that an accurate damage assessment may be generated.

(2) The Service will designate a secondary contact person. for the On-Scene-Coordinator, who will advise and coordinate with the California Department of Fish and Game primary contact person on activities related to wildlife and fisheries resource problems resulting from a spill and specifically:

(a) Will act as the primary contact only if the California Department of Fish and Game designate is unavailable to carry out assigned activities.

(b) Will coordinate arrangements for entry to and use of resources of National Wildlife Refuges and/or other Service administered facilities.

(c) Will provide coordination with specialized Service groups such as the Sea Otter Recovery Group and the National Wildlife Health Center, which have unique technical knowledge, training, equipment or facilities that may be valuable in the emergency or for assessing damages to natural resources by the spiller.

(3) Additionally, the Service will expeditiously review and act upon applications for necessary Federal permits to recover and provide temporary assistance to migratory birds affected by the spill. Such permits shall be applied for by the California Department of Fish and Game primary contract person. Bird rescue organizations under the direct control of the California Department of. Fish and Game or employed by or under contract to the California Department of Fish and Game, may carry out the activities authorized by the permit. The Service will expeditiously review and act upon applications from qualified treatment centers for permits to authorize care and treatment of endangered or threatened species.

(4) California Department of Fish and Game and the Service will work cooperatively to assess damages to natural resources including but not limited to the Department of the Interior Type A and Type B damage assessment regulations developed under the Comprehensive Environmental Response Compensation and Liability Act. Data will be developed and cooperatively shared to document clean up and natural resource damage liability costs and recover these costs from the spiller.

(C) Limitations:

(1) Nothing in this Memorandum of Understanding shall be interpreted to conflict with or to be inconsistent with any statute, regulation, or other provision of law applicable to the California Department of Fish and Game or the Service. The Service will carry out the duties of primary contact person in those instances wherein the protected species receives Federal but not State protection or as requested by either the California Department of Fish and Game or Department of the Interior.

(2) Implementation of this Agreement by the Service shall be subject to the limits of appropriated funds.

(3) No commitment of Service funds to the California Department of Fish and Game shall be made with regard to any spill or planning operation without express written agreement to that effect. Likewise, no commitment of California Department of Fish and Game funds shall be made with regard to spill or planning operation without express written agreement to that effect.

(D) This agreement may be canceled by either party by providing 30 days prior written notice to the other party or by mutual agreement.

In witness whereof the parties have executed this Memorandum of Understanding (Agreement) as of the day and year last below written.

Pete Bontadelli 1-20-88

Director, California Department of Fish and Game Date

Walter Heuchee 3-15-89

Acting Regional Director, U.S. Fish and Wildlife Service, Reg 1, Date

COOPERATIVE AGREEMENT BETWEEN

THE CALIFORNIA DEPARTMENT OF FISH AND GAME
AND
THE U.S. FISH AND WILDLIFE SERVICE
Endangered and Threatened Fish, Wildlife, and Plants

This Cooperative Agreement is entered into pursuant to Section 6(c) of the Endangered Species Act of 1973, as amended 16 U.S.C. § 1531-et seq (hereinafter referred to as "the Act"), and the California Endangered Species Act of 1984 (CESA), Species Protection Act of 1970, and California Native Plant Protection Act of 1977, between the U.S. Fish and Wildlife Service, U.S. Department of the Interior, and the California Department of Fish and Game. Hereinafter, the parties shall be referred to as "USFWS", and "CDFG" respectively,

WHEREAS, the Congress of the United States has found that there are resident species of fish, wildlife, and plants which, are in danger of extinction and that these species of fish, wildlife and plants are of aesthetic, ecological, educational, scientific, economic, and other value to the Nation and its people;

WHEREAS, the purposes of the Acts are to provide a means whereby the ecosystems upon which endangered and threatened fish, wildlife and plants depend may be conserved, to provide a program for the conservation of such species, and to take such steps as may be appropriate to achieve the purposes of the various treaties and conventions related to the conservation of fish, wildlife and plants;

WHEREAS, the Congress of the United States has declared that encouraging the States and other interested parties, through Federal financial assistance and a system of incentives, to develop and maintain conservation programs which meet national and international standards as expressed in the said Endangered Species Act is a key to meeting the Nation's International commitments and to better safeguarding, for the benefit of all citizens, the Nation's heritage in its fish, wildlife and plants;

WHEREAS, the Secretary of the Interior has delegated his responsibilities under the Act to the Director, USFWS;

WHEREAS, the Director, USFWS, desires to enter into this Cooperative Agreement for the purpose of assisting in the implementation of the endangered and threatened fish, wildlife, and plant conservation program of the State of California for those species under his jurisdiction;

WHEREAS, the State of California acting through the CDFG, wishes to administer its program for the conservation of endangered, threatened and rare fish, wildlife and plants in harmony with the terms and spirit of the Act;

WHEREAS, the parties agree that programs of the State of California are designed to assist in the conservation and recovery of resident endangered and threatened and rare fish, wildlife and

plants, and that is the mutual desire of the CDFG and the USFWS to work in harmony for the common purposes of planning, developing and conducting programs to protect and enhance populations of all resident endangered, threatened and rare fish, wildlife and plants within the State of California,

WHEREAS, the Director, USFWS, has the statutory and administrative responsibility to establish programs for the conservation of endangered and threatened fish, wildlife and plants which are under his jurisdiction to provide periodic review of the State program at no greater than annual intervals; to provide funding to that program as such funding is available and in accordance with the terms of the Act, to provide coordination among the programs of the various States; and to exchange with the CDFG such biological data or other information which may result in the enhancement and recovery of endangered, threatened and rare fish, wildlife and plants;

WHEREAS, the CDFG has a statutory responsibility to conserve endangered, threatened and rare fish, wildlife and plants which are resident in the State of California. Resident wildlife species is defined for purposes of this Act in 50 CFR Part 81 (40 FR 47509, Oct. 9, 1975) and plant species as included in the term "species" under amended definitions, and

WHEREAS, the CDFG (a) has the authority to conserve resident rish or wildlife and plants determined by the State agency or the Secretary to be endangered, threatened or rare; (b) has established an acceptable conservation program, consistent with the purposes and policies of the Act, for all resident fish, wildlife and plants in the State which are deemed by the Secretary to be endangered and threatened and has furnished a copy of such a program together with all pertinent details, information, and data requested by the Secretary; (c) has the authority to conduct investigations to determine the status and requirements for survival of resident fish, wildlife and plants; (d) has the authority to establish programs, including the acquisition of land or aquatic habitat or interests therein, for the conservation of resident endangered, threatened or rare fish, wildlife and plants; and (e) has provided for public participation in designating resident fish, wildlife and plants as endangered, threatened or rare;

Now therefore the parties agree as follows:

1. Cooperative Program

   (a) The CDFG will carry out the activities identified in its program for the benefit of the endangered, threatened and rare fish, wildlife and plants which are resident in the State of California.

   (b) The Director, USFWS, may agree with the State to provide financial assistance for the implementation of an acceptable project for the conservation of endangered and threatened fish, wildlife and plants. Such financial assistance will require the submission of an Application for Federal Assistance and the successful negotiation of a Project Agreement. These will comply with the Secretary's Rules and Regulations 50 CFR Part 81, (40 FR 47509, Oct 9, 1975), and the USFWS Federal Aid Manual.

(c) As a part of this cooperative program, the law enforcement authorities of USFWS and the CDFG shall cooperate in the detection, apprehension, and prosecution of violators of the Act or State law intended to conserve endangered, threatened and rare fish, wildlife and plants.

(d) As additional species of resident fish or wildlife and plants in the State of California are listed as endangered or threatened by the USFWS or endangered, threatened or rare by the State, the parties agree to cooperate in the development of programs and projects for the benefit of such species.

(e) It is understood that any Federal funding pursuant to Section 6(d) of the Act is contingent on the continued implementation of an adequate and active program for the conservation of federally listed endangered and threatened fish, wildlife and plants that are resident in the State of California as defined in 50 CFR Part 81 (40 FR 47509, Oct. 9, 1975). If the program for the conservation of such fish, wildlife or plants is determined by the Director, USFWS, to be Inadequate or Inactive, this Agreement and funding shall be terminated in accordance with Sections 5 and 7 of this Agreement.

(f) As part of the listing process pursuant to Section 4 of the Act for the determination of endangered and threatened fish, wildlife and plants, and of critical habitat for Federally listed endangered or threatened species, the parties agree to exchange biological and other data as necessary to facilitate such determination by the Director, USFWS.

(g) As part of the Interagency cooperation and consultation process, provided for by Section 7 of the Act and Section 2095 of the CESA, the parties agree to exchange Information, as appropriate, during their respective consultation processes.

2. Permits

(a) General Rule

The CDFG agrees not to engage in, or issue a permit authorizing the taking of resident federally listed endangered or threatened fish, wildlife or plants as defined in 50 CFR Part 81, (40 FR 47509, Oct 9, 1975) without prior Issuance of a permit to the applicant by the Director, USFWS, except as authorized in subsection 2(b), (c), or (d) of this Agreement, pursuant to a special rule In 50 CFR § 17.21.

(b) Any qualified employee or agent (contractor to the CDFG for implementation of specific recovery actions) of, the CDFG who is designated by that Agency for such purposes, may, when acting in the course of his official duties, take any resident federally listed endangered or threatened fish, wildlife or plant for

conservation purposes that are consistent with the Cooperative Agreement and any approved Application for Federal Assistance attached thereto, or any recovery recommendations in draft or recovery plans, provide that such taking is not reasonably anticipated to result in;

(1) the death or permanent disabling of the specimen;
(2) the removal of the specimen from the State of California;
(3) the introduction of the specimen or any of its progeny into an area beyond the historical range of the specimen; or
(4) the holding of the specimen in captivity for a period of more than 45 consecutive days in the case of animals; and
(5) that the authority, conveyed to the CDFG by this subsection may, at any time, be temporarily suspended for a particular project or that part of the conservation program by written notification by the Regional Director, USFWS, upon his receipt and determination that there is substantial evidence demonstrating the CDFG is using this authority for purposes inconsistent with the purposes of the Act. Such suspension will not be imposed until after consultation between the Regional Director, USFWS, and CDFG. Upon notification of the temporary suspension and the reasons therefore, the CDFG may request from the Director, USFWS, an opportunity to demonstrate compliance with the purposes of the Act. The Director shall promptly consider the evidence so submitted by the CDFG and either reaffirm the conclusion of the Regional Director, USFW5, and revoke the authority temporarily suspended pursuant to this subsection, or reverse the conclusion of the Regional Director, USFWS, and reinstate the authority temporarily suspended.

(c) Emergency Provisions

Any employee or agent of the CDFG who is designated by that Agency for such purposes may, when acting in the course of his official duties, take federally listed endangered and threatened fish, wildlife or plants without a permit if such action is necessary to:

(1) aid a sick, Injured, or orphaned specimen; or
(2) dispose of a dead specimen, or
(3) salvage a plant or dead animal specimen which may be useful for scientific study, or
(4) remove specimens which constitute a demonstrable, but non-immediate threat to human safety, provided that the taking is done in a humane manner, the taking may Involve killing or Injuring animals only If it has not been reasonably possible to eliminate such threat by live capturing and releasing the specimen unharmed in remote area; or
(5) defend his own life or the lives of others.

Any taking pursuant to this subsection 2 (c) must be reported in writing within 5 days to the Regional Director, USFWS, for transmission to the Division of Law Enforcement, USFWS, in Washington, D.C. The specimen may only be retained, disposed of, or salvaged in accordance with directions from the USFWS,

3. Records

The CDFG agrees to maintain records of:

(1) the federally funded projects for the conservation of endangered threatened and rare fish, wildlife or plants In accordance with Chapters 4 and 5 of the USFWS Federal Aid Manual; and

(2) the number of specimens of each species of federally listed endangered and threatened fish, wildlife or plants taken by State employees or agents pursuant to 50 CFR § 17.21(c)(5) and § 17.31 (b) as amended, the conservation purposes for which they were taken, and any mortalities or permanently disabling injuries resulting from the taking,

4. Notification

The CDFG agrees to inform the USFWS of any change in circumstances that could cause the state program to be in nonconformance with the requirements of Section 6(c) of the Act. Included without limitation are changes In the CDFG's relevant constitutional, statutory, or regulatory authority. The CDFG shall promptly furnish the USFWS with an assessment of the effect of such a change on the State's ability to remain In compliance with the requirements of Section 6(c) of the Act. The Director, USFWS, agrees to notify the State of all regulations and. rulemakings made pursuant to the provisions of the Act, that might affect the State's program.

5. Effective Date and Renewal

(a) This Agreement shall become effective when signed by the Regional Director, USFWS, and the Director, CDFG, and may be renewed in the following manner: Not later than June 30th or each year the CDFG shall submit to the USFWS, the following items:

(1) additions and/or deletions to the Federal and State lists of endangered, threatened, and rare fish, wildlife or plants which are resident in the State,

(2) a memorandum of law analyzing any changes in the CDFG's statutory authority for endangered, threatened and rare fish, wildlife or plants which

were made since the date of the previous program submission. This memorandum shall also analyze the application of State law to any resident fish. wildlife or plant species that have been added to the Federal endangered and threatened species list since the date of the previous program submission;

(3) a list of any substantial changes in the State's endangered, threatened and rare fish, wildlife or plant conservation programs since the date of the previous program submission;

(4) a detailed description of the number of specimens of each species of federally listed Endangered and Threatened species taken by State employees or agents pursuant to 50 CFR § 17.21 (c)(5) and § 7.31 (b) as amended, the conservation purposes for which they were taken, and any rnortalities or permanently disabling Injuries to them resulting from the taking; and

(5) copies of such reports the CDFG has prepared since the previous program accomplishments for resident, federally listed endangered and threatened species.

(b) USFWS will, on or before October 1st of each year, notify the CDFG In writing either that the Cooperative Agreement is renewed effective October 21st of that year, or that the CDFG endangered and threatened fish, wildlife and plant conservation program or authorities are not in compliance with the criteria of Section 6(c) of the Act and unless appropriate changes are made by June 30th of the following year, this Agreement shall be terminated.

(c) For the purposes of this section, the phrase “previous” program submissions means either the program submission of (1) the original Cooperative Agreement and amendments or (2) the most recent renewal application for the Cooperative Agreement, whichever is later in time.

6. Amendment

This Agreement may be amended at any time with the concurrence of the signatory parties.

7. Termination

This Agreement may be terminated:

(a) by mutual agreement;

(b) by the CDFG upon 60 day written notice to the USFWS; or

(c) notwithstanding the renewal provisions in Section 5(b) of this Cooperative Agreement by the USFWS upon 6o days written notice to the signatory party for the State of California from the Regional Director, USFWS, stating that the State's endangered and threatened fish, wildlife or plant conservation program is no longer in compliance with the criteria of Section 6(c) of the Act or that the State has violated a provision of this Agreement. The CDFG may submit a written request for review to the Director, USFWS, within 30 days of receipt of the termination notice. The Director, USFWS, will consider all evidence submitted by the CDFG in Its request for review and either reaffirm the conclusion of the Regional Director and terminate this Agreement at the and of the 60 day notification period, or reverse the conclusion of the Regional Director and revoke the notice of termination. All Federal funds which have been obligated to but not expanded by the CDFG as of the date of the termination notice shall be retained by the USFWS for reallocation pursuant to Section 6(d) of the Act unless: (1) those funds are specifically approved by the Regional Director for expenditure before the date of actual termination; or (2) the notice of termination is revoked by the Director, USFWS.

AUG 28 1991
Date

Original Signed By
Howard A. Sarasohn for
Director
California Department of Fish and Game

JUN 6 1991
Date

WILLIAM E. MARTIN
Acting Regional Director
U.S. Fish and Wildlife Service

United States Department of the Interior
FISH AND WILDLIFE SERVICE

911 N.E. 11th Avenue
Portland, Oregon 97232-4181

Colette

In Reply Refer To:
FWS/AFF/FA

February 9, 1994

Boyd Gibbons, Director
California Department of Fish and Game
1416 Ninth Street
Sacramento, California 94244-2090

Dear Mr. Gibbons:

We appreciate your January 25, 1994 letter that provides information for renewal of the Cooperative Agreement between the California Department of Fish and Game and the U.S. Fish and Wildlife Service (Service) as required for the continuation of the Section 6 Grant Program of the Endangered Species Act. The necessary information has been supplied pursuant to Section 5 (a) of the Cooperative Agreement. By fulfilling the requirements of this Section of the Agreement and also Section 6(c) of the Act, the Cooperative Agreement can be renewed for another year.

Enclosed is a copy of approved Grant Proposal Amendment 9 (Form 424). This Amendment requests the continuation of Project E-2, Statewide Endangered, Threatened and Rare Species Program and provides a list of proposed projects.

Please understand the approval of the Form 424 along with the renewal of the Cooperative Agreement only completes the eligibility requirements to participate in the Section 6 Grant Program of the Endangered Species Act. Funding and recovery actions funded are contingent on appropriations from Congress and the recovery needs and priorities as determined by the Service, State and other responsible agencies. When final selections have been made from the proposed projects submitted by your and other state agencies, you will be notified of the projects funded for California with Fiscal Year 1994 Section 6 funds.

If you have any questions, please contact Tom Williams at (503)231-6273.

Sincerely,

for Donald V. Friberg
Deputy Assistant Regional Director
Division of Federal Aid

MEMORANDUM OF AGREEMENT
BETWEEN
THE CALIFORNIA DEPARTMENT OF FISH AND GAME
OFFICE OF OIL SPILL PREVENTION AND RESPONSE
AND
THE NATIONAL MARINE FISHERIES SERVICE
SOUTHWEST REGION
REGARDING THE CALIFORNIA MARINE MAMMAL STRANDING
NETWORK AND THE OILED WILDLIFE CARE NETWORK

ARTICLE I - BACKGROUND AND OBJECTIVES

Acting in furtherance of the purposes of the Marine Mammal Protection Act of 1972 (MMPA) , 16 U.S.C. Section 1361 et seq.; the Endangered Species Act of 1973 (ESA), 16 U.S.C. Section 1531 et seq.; the Oil Spill Prevention and Response Act of 1990 (OSPRA), California Government Code Section 8670 et seq.; and the California Endangered Species Act, California Fish and Game Code Section 2050 et. seq.; and

RECOGNIZING THAT:

1. The California Department of Fish and Game (DFG) is the State trustee agency for marine mammals and sea turtles. The Administrator of the Office of Oil Spill Prevention and Response (OSPR), acting through the DFG, has the primary State authority to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects or any oil spill in marine waters of the State, and the DFG has delegated to the OSPR the duty of directing all other DFG response efforts for spills impacting State waters.

2. The California State Legislature has mandated the OSPR to:

   (a) establish rescue and rehabilitation facilities to provide best achievable treatment for birds and marine mammals affected by oil spills in marine waters of the State;

   (b) establish these facilities in the Los Angeles Harbor area, San Francisco Bay area, San Diego area, Monterey Bay area, Humboldt County area, and the Santa Barbara area;

   (c) establish facilities in other coastal areas of the State that the OSPR deems necessary; and

   (d) whenever possible, improve existing authorized marine mammal rehabilitation facilities. These facilities collectively comprise the Oiled Wildlife Care Network (OWCN).

3. The California State Legislature has provided the OSPR with the authority to enter into agreements with organizations to establish and equip wildlife rescue and rehabilitation

stations, and to ensure that they are operated in a professional manner.

4. The National Marine Fisheries Service (NMFS) is the Federal trustee agency responsible for pinnipeds, cetaceans, and sea turtles in the State of California, and the MMPA conveys pre-eminent Federal jurisdiction to the NMFS over all pinnipeds and cetaceans in the state of California.

5. The NMFS oversees the operation of the California Marine Mammal Stranding Network (CMMSN), which is responsible for the rescue and rehabilitation of all live-stranded pinnipeds, cetaceans, and sea turtles, and the disposition of all dead-stranded pinnipeds, cetaceans, and sea turtles in the State of California.

6. It is in the best interest of the pinniped, cetacean, and sea turtle resources in the State of California for the OSPR and the NMFS to cooperate jointly in the rescue, rehabilitation, and disposition of these resources affected by oil spills in marine waters of the State, as performed by the CMMSN and the OWCN.

ARTICLE II - STATEMENT OF AGREEMENT

THE OSPR AND THE NMFS (THE PARTIES) DO HEREBY CONCLUDE THIS AGREEMENT TO govern the rescue and rehabilitation of live stranded pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State, and the collection of life history information and disposition of dead stranded pinnipeds, cetaceans, and sea turtles suspected of having been affected by oil spills in marine waters of the State.

A. The OSPR hereby agrees to:

1. Cooperate fully with the NMFS and the CMMSN in the rescue and rehabilitation of pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

2. Incorporate the NMFS guidelines and protocols on the rescue of live stranded pinnipeds, cetaceans, and sea turtles, and the collection of life history information and disposition of dead-stranded pinnipeds, cetaceans, and sea turtles, as outlined in the NMFS/OSPR Contingency Plan for Response to Pinnipeds, Cetaceans, and Sea Turtles Affected By 0i1 Spills in Marine Waters of the State of California (Attachment A), into the OWCN protocols for response, rescue, rehabilitation, and medical treatment of pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

3. Develop and implement cleaning and release protocols for use by the OWCN, in consultation with the NMFS, for pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

4. Develop training materials in consultation with the NMFS, for use by the OWCN dealing with species identification, restraint and capture, techniques, medical care, biological sampling, and sample preservation consistent with applicable laws and regulations.

5. Ensure that the NMFS is fully informed prior to the release of information to the Information Officer and/or the Joint Information Center (JIC) regarding the numbers, species, or condition of pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

B. The NMFS hereby agrees to:

1. Cooperate fully with the OSPR and the OWCN in the rescue and rehabilitation of pinnideds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

2. Encourage the CMMSN to provide the OSPR, upon request, with copies of all data and medical records regarding pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

3. Encourage the CMMSN to provide the OSPR with pelage, blood, tissue, and organ samples, as requested, to the extent that they are available or can be collected as part of regularly conducted veterinary practices.

4. Develop training materials, in consultation with the OSPR, for use by the CMMSN and the OWCN, dealing with species identification, restraint and capture techniques, medical care, biological sampling, and sample preservation consistent with applicable laws and regulations.

5. Ensure that the OSPR is fully informed prior to the release of information to the Information Officer and/or the Joint Information Center (JIC) regarding the numbers, species, or condition of pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

6. Provide to the OWCN Program Director, with regular updates, contact phone numbers and addresses of all CMMSN rehabilitation facilities and scientific institutions, and provide, in advance, copies of all forms to be completed by the OSPR pursuant to the attached protocols.

C. The OSPR and the NMFS further mutually understand and agree that:

1. The primary purposes of this agreement are (a) to ensure that pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State receive the best achievable treatment and (b) to ensure the collection of sound biological and chemical data on such affected resources in order that natural resource injuries and/or damages can be accurately identified and assessed.

2. To the extent possible, and as determined by the Unified Command, pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State will be captured and

transported to an appropriate rehabilitation facility which is part of both the CMMSN and the OWCN. Factors to be considered by the Unified Command in deciding to which rehabilitation facility an affected animal will be transported include: (a) CMMSN member geographical area of authorization; (b) animal species; (c) medical condition and needs of the animal; and (d) special medical capabilities and current carrying capacity of individual CMMSN and OWCN members.

3. No pinnipeds, cetaceans, or sea turtles affected by oil spills in marine waters of the State and successful rehabilitated will be released back into the wild without prior approval by the NMFS. All animals released will be fitted with NMFS approved tags. The fate of non-releasable animals will be determined by the NMFS in consultation with the OSPR.

4. All original records and data collected by members of the CMMSN relating to pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State and regarded as potential evidence in a natural resource damage assessment will be provided to the OSPR upon request. These records will continue to be the property of the State and Federal trustee agencies, but will be placed in the custody of the OSPR.

5. All dead pinnipeds, cetaceans, and sea turtles suspected of having been affected by oil spills in marine waters of the State will be, as practical, recovered by the OSPR or the CMMSN. The carcasses will be taken to the appropriate OWCN scientific facility for necropsy and/or storage, and then transferred to a secured storage facility identified by the OSPR, using appropriate chain of custody procedures, until full resolution of any State criminal or civil claims with the Responsible Party. During this time, the OSPR, will be responsible for maintaining the chain of custody of these carcasses. Upon conclusion of full settlement, the OSPR will coordinate with the NMFS regarding proper disposition of the carcasses.

6. All dead pinnipeds, cetaceans, and sea turtles recovered by the OSPR but not suspected of having been affected by oil spills in marine waters of the State will be released to the CMMSN as soon as practicable following consultation with the NMFS. The OSPR will not dispose of any carcasses without the prior approval of the NMFS.

7. The Parties may enter into funding agreements to upgrade rehabilitation facilities, provide supplies, and provide training in order to improve their efficiency in treating and rehabilitating pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State.

8. The Parties may enter into agreements with research organizations, scientific institutions, or with other Federal or State agencies for the purpose of carrying out their responsibilities under this Agreement. Each Party shall give prior notice to the other Party of the intent to pursue such agreements. Any such agreement must be consistent with the provisions of this MOA, and any conflict shall be resolved, by the Parties before any such agreement is signed by a Party. Confirmed copies of any such agreements must be provided to both Parties. Any such proposed agreement related to natural resource damage assessment shall be confidential, shall include signed confidentiality agreements,

and a copy shall be provided to the other Party for review and comment prior to signing.

9. All samples, including biological and chemical materials, collected by the CMMSN which may be regarded as potential evidence in a natural resource damage assessment will be provided to the OSPR, upon request, using appropriate chain of custody procedures. These samples and materials will continue to be the property of the State and Federal trustee agencies, but will be placed in the custody of the OSPR. The OSPR will be responsible for maintaining the chain of custody of these samples and materials.

10. Nothing contained in this MOA is intended to conflict with current NMFS or OSPR authorities or responsibilities; each Party will advise the other of potential or known conflicts.

11. The NMFS will notify the OSPR within thirty days of authorizing a new rehabilitation facility or scientific institution to Participate in the CMMSN or within thirty days of removing a rehabilitation facility's or scientific institution's authority to participate in the CMMSN. The OSPR may invite new CMMSN members to join the OWCN.

ARTICLE III - TERMS OF AGREEMENT

(1) This agreement shall commence on the date of last signature, and shall be effective through June 30, 2003. This MOA will be automatically renewed every five years thereafter, unless the Parties agree otherwise.

(2) The terms of this MOA may be modified by a written agreement signed by both Parties. Any action to modify or amend this agreement may only be taken by the Key Officials, or their designees.

(3) Should any disagreement arise concerning the interpretation of the terms of this MOA that cannot be resolved at the staff level, the area(s) of disagreement shall be reduced to writing for consideration by both Parties. If agreement on interpretation is not reached within a reasonable amount of time, but not to exceed thirty days, the Parties shall forward the written presentation of the disagreement to respective higher officials for resolution.

ARTICLE IV - TERMINATION

This MOA may be terminated sixty days after written notice from either Party, or modified or extended by mutual agreement.

ARTICLE V - KEY OFFICIALS

Regional Administrator
Southwest Region
National Marine Fisheries Service

Administrator
Office of Oil Spill Prevention and Response
California Department of Fish and Game

11 Jun 1997
Pete Bontadelli DATE
Administrator
OFFICE OF OIL SPILL PREVENTION
AND RESPONSE

William T. Hogarth 26 March 1997
William T. Hogarth, Ph.D DATE
Acting Regional Administrator
Southwest Region
NATIONAL MARINE FISHERIES SERVICE

ATTACHMENT A

NMFS/OSPR CONTINGENCY PLAN FOR RESPONSE TO PINNIPEDS, CETACEANS, AND SEA TURTLES AFFECTED BY OIL SPILLS IN MARINE WATERS OF THE STATE OF CALIFORNIA

Free-Swimming Pinnipeds

1. Any sighting of a free-swimming pinniped believed to be affected by an oil spill is to be immediately reported to the OSPR personnel on site.

2. The OSPR personnel will investigate the sighting using one of the response vessels or support vessels listed in the appropriate Area Contingency Plan.

3. The OSPR personnel will then make a decision on whether or not to initiate a rescue based on the NMFS guidelines on page 5 of this document.

4. If the OSPR personnel decide that a rescue attempt should be initiated, the OSPR personnel will contact the appropriate marine mammal rehabilitation center (MMRC) to coordinate the rescue.

5. Upon capture and prior to transport to the appropriate MMRC, a marine mammal stranding report form will be completed by either the MMRC or the OSPR personnel. At this time, the animal will be assigned a case number for damage assessment purposes. The case number will be recorded on the marine mammal stranding report form.

Live Beached Pinnipeds

1. Any sighting of a live beached pinniped in the general area of an oil spill is to be immediately reported to the OSPR personnel on sight.

2. The OSPR personnel will then investigate the sighting and will make a decision on whether or not to initiate a rescue attempt based on the overall health of the animal.

3. If the OSPR personnel decide that a rescue attempt should be initiated, the OSPR personnel will contact the appropriate marine mammal rehabilitation center (MMRC) to coordinate the rescue.

4. Upon capture and prior to transport to the appropriate MMRC, a marine mammal stranding report form will be completed by either the MMRC or the OSPR personnel. At this time, the animal will be assigned a case number for damage assessment purposes. The case number will be recorded on the marine mammal stranding report form.

Dead Beached Pinnipeds

1. Any sighting of a dead beached pinniped in the general area of an oil spill is to be immediately reported to the OSPR personnel on site.

2. The OSPR personnel will investigate the sighting and document the dead beached pinniped (whether or not the carcass is fresh or decomposed) following the protocol on Page 6 of this document.

3. Every carcass examined will be assigned a case number for damage assessment purposes. The case number will be recorded on the marine mammal stranding report form.

4. Every attempt will be made to transport all fresh dead carcasses to the appropriate scientific institution for a complete necropsy in a laboratory environment. A field necropsy should not be conducted, except in the case where a carcass is too large for transport.

Free-Swimming and Live Beached Cetaceans

1. Any sighting of a free-swimming cetacean believed to be affected by an oil spill is to be immediately reported to the OSPR personnel on site.

2. The OSPR personnel will investigate the sighting using one of the response vessels or support vessels listed in the appropriate Area Contingency Plan.

3. If the OSPR personnel decide that a stranding is imminent, they will immediately contact the appropriate marine mammal rehabilitation center (MMRC), scientific institution (SI), and NMFS Stranding Coordinator for assistance. (No rescue attempts are to be made on free-swimming cetaceans).

4. Prior to returning a live beached cetacean back to the ocean or transporting the cetacean to the appropriate MMRC, a marine mammal stranding report form will be completed by either the MMRC, SI, or OSPR personnel. At this time, the animal will be assigned a case number for damage assessment purposes. The case number will be recorded on the marine mammal stranding report form.

Dead Beached Cetaceans

1. Any sighting of a dead beached cetacean in the general area of an oil spill is to be immediately reported to the OSPR personnel on site.

2. The OSPR personnel will investigate the sighting, document the dead beached cetacean (whether or not the carcass is fresh or decomposed), and immediately contact the appropriate scientific institution (SI) and the NMFS Stranding Coordinator.

3. Every cetacean carcass will be assigned a case number for damage assessment purposes. The case number will be recorded on the marine mammal stranding report form.

4. Every attempt will be made to transport all cetacean carcasses (both fresh dead and decomposed) to the appropriate SI for a complete necropsy in a laboratory environment. (No necropsies are to be attempted in the field unless permission is granted by the NMFS Stranding Coordinator).

Free-Swimming and Live Beached Sea Turtles

1. Any sighting of a free-swimming sea turtle believed to be affected by an oil spill or a live beached sea turtle in the general area of an oil spill is to be immediately reported to the OSPR personnel on site.

2. The OSPR personnel will investigate the sighting using one of the response vessels or support vessels listed in the appropriate Area Contingency Plan.

3. If the OSPR personnel decide that a free-swimming or live beached sea turtle has not been affected by an oil spill, but is likely to become affected if no action is taken, the OSPR personnel will translocate the animal to another site for release. (Prior to release, the OSPR personnel will contact the appropriate scientific institution and the NMFS Stranding Coordinator to ensure proper species identification).

4. If the OSPR personnel decide that a free-swimming sea turtle has been affected by an oil spill, the OSPR personnel will capture the animal and immediately contact the appropriate sea turtle rehabilitation center (STRC) and the NMFS Stranding Coordinator for assistance.

5. Prior to translocating a free-swimming or live beached sea turtle to another site for release or transporting the animal to the appropriate STRC, a sea turtle stranding report form will be completed by either the STRC or the OSPR personnel. At this time, the animal will be assigned a case number for damage assessment purposes. The case number will be recorded on the seas turtle stranding report form.

Dead Beached Sea Turtles

1. Any sighting of a dead beached sea turtle in the general area of an oil spill is to be immediately reported to the OSPR personnel on site.

2. The OSPR personnel will investigate the sighting, document every dead beached sea turtle (whether or not the carcass is fresh or decomposed), and immediately contact the appropriate scientific institution (SI) and the NMFS Stranding Coordinator.

3. Every sea turtle carcass will be assigned a case number for damage assessment purposes. The case number will be recorded on the sea turtle stranding report form.

4. Every attempt will be made to transport all sea turtle carcasses (both fresh dead and decomposed) to the appropriate SI for a complete necropsy in a laboratory environment. (No necropsies are to be attempted in the field unless permission is granted by the NMFS Stranding Coordinator).

NMFS GUIDELINES FOR RESCUING PINNIPEDS AFFECTED BY OIL SPILLS

(To be implemented under the guidance of CDFG-OSPR and NOAA NRDA staff for the Incident Commander)

1. No rescue should be initiated on free-swimming or beached pinnipeds in the vicinity of an oil spill unless the animal in question is in obvious distress. A good rule-of-thumb to follow is, if the animal attempts to evade capture, leave it alone.

2. No rescue attempt should be made of any pinnipeds hauled out on a mainland or offshore island rookery site, or hauled out on a breakwater, barge, or bell buoy. The primary goal at these sites should be to boom off the immediate area, thereby creating a buffer zone around the site.

3. No hazing of pinnipeds should occur unless authorized by the Incident Commander.

PROTOCOL FOR DETERMINING IF A PINNIPED HAS BEEN AFFECTED BY AN OIL SPILL

A. Live Animal

(In coordination with the CDFG-OSPR and the NOAA NRDA staff for the Incident Commander).

1. Determine if the animal is a candidate for capture based on the NMFS guidelines.

2. Capture may be initiated by the appropriate marine mammal rehabilitation center under the guidance of the CDFG-OSPR and the NOAA NRDA staff.

B. Dead Animal

(In coordination with the CDFG-OSPR and the NOAA NRDA staff for the Incident Commander, determine if the carcass is fresh or decomposed).

1. Fresh Carcass

   a. Complete a NMFS stranding report.
   b. Tag the carcass with a field identification number.
   c. Transfer the carcass to a designated holding facility (freezer storage).
   d. Perform a necropsy.
   e. Forward the original stranding report and a copy of the necropsy report to the NMFS.

2. Decomposed Carcass

   a. Complete a NMFS stranding report.
   b. Tag the carcass with a field identification number and spray paint.
   c. Contact the responsible beach agency for disposal.
   d. Forward the original stranding report to the NMFS.

NMFS GUIDELINES FOR RESCUING CETACEANS AFFECTED BY OIL SPILLS

(To be implemented under the guidance of CDFG-OSPR and NOAA NRDA staff for the Incident Commander)

1. No rescue should ever be initiated on free-swimming cetaceans in the vicinity of an oil spill.

2. A rescue should always be attempted on a beached cetacean. The animal should be covered with a light material such as a sheet or towel to protect it from heat stress and kept wet at all times. The eyes, snout, blowhole, flippers, and flukes should be left uncovered at all times. The animal should be positioned on its belly with shallow depressions made in the sand for the flippers to fit into.

3. No beached cetacean is to be pushed back out to sea without first being examined by a NMFS-approved marine mammal veterinarian. The animal should be affixed with a NMFS-approved tag or brand prior to being returned to the open ocean.

PROTOCOL FOR DETERMINING IF A CETACEAN HAS BEEN AFFECTED BY AN OIL SPILL

A. Live Animal

(In coordination with the CDFG-OSPR and the NOAA NRDA staff for the Incident Commander)

1. Determine if the animal is a candidate for rehabilitation based on the NMFS guidelines.

2. Capture may be initiated by the appropriate marine mammal rehabilitation center under the guidance of the CDFG-OSPR and the NOAA NRDA staff.

B. Dead Animal (Fresh or Decomposed)

1. Complete a NMFS stranding report.
2. Tag the carcass with a field identification number.
3. Transfer the carcass to a designated holding facility (freezer storage).
4. Perform a necropsy.
5. Forward the original stranding report and a copy of the necropsy report to the NMFS.

NMFS GUIDELINES FOR RESCUING SEA TURTLES AFFECTED BY OIL SPILLS

(To be implemented under the guidance of CDFG-OSPR and NOAA NRDA staff for the Incident Commander)

1. A rescue should always be initiated on a free-swimming sea turtle in the vicinity of an oil spill unless the animal attempts to evade capture. If the animal is captured but does not appear to have been affected, the animal should be translocated and released at another site following consultation with the appropriate scientific institution or the NMFS Stranding Coordinator.

2. A rescue should always be attempted on a beached sea turtle. The animal should be covered with a light material such as a sheet or towel to protect it from heat stress and kept wet at all times. The head and flippers should be left uncovered at all times. The animal should be positioned on its belly with shallow depressions made in the sand for the flippers to fit into.

3. No beached sea turtle is to be pushed back out to sea without first being examined by a NMFS-approved sea turtle veterinarian. The animal must be affixed with a NMFS-approved tag prior to being returned to the open ocean.

PROTOCOL FOR DETERMINING IF A SEA TURTLE HAS BEEN AFFECTED BY AN OIL SPILL

A. Live Animal

(In coordination with the CDFG-OSPR and the NOAA NRDA staff for the Incident Commander)

1. Determine is the animal is a candidate for capture based on the NMFS guidelines.

2. Capture may be initiated by the appropriate sea turtle rehabilitation center under the guidance of the CDFG-OSPR and the NOAA NRDA staff.

B. Dead Animal (Fresh or Decomposed)

1. Complete a NMFS stranding report.
2. Tag the carcass with a field identification number.
3. Transfer the carcass to a designated holding facility (freezer storage).
4. Perform a necropsy.
5. Forward the original stranding report and a copy of the necropsy report to the NMFS.

MARINE MAMMAL AND MARINE TURTLE STRANDING REPORT SID#_____ (NMFS USE)

FIELD NO.:_____ NMFS REGISTRATION NO._____

COMMON NAME:_____GENUS:_____SPECIES:_____

EXAMINER
Name:_____ Agency:_____ Phone:_____

Address:_____

LOCATION
State:_____ County:_____

City: _____

Locality Details: _____

_____

_____

_____

*Latitude:_____N

*Longitude:_____W

TYPE OF OCCURRENCE
Mass Stranding: (Yes) / (No) # Animals_____
Human Interaction: (Yes) / (No) / (?)
Check one: __1. Boat collision
__2. Shot
__4. Fishery interaction
__5. Other_____

How determined: _____

Other Causes (if known):_____

_____

DATE OF INITIAL OBSERVATION:
Yr _____ Mo _____ Day _____
CONDITION: Check one:__1.Alive
__2.Fresh dead
__3.Moderate decomp.
__4.Advanced decomp.
__5.Mummified
__? Unknown

DATE OF EXAMINATION:
Yr _____ Mo _____ Day _____
CONDITION: Check one:__1.Alive
__2.Fresh dead
__3.Moderate decomp.
__4.Advanced decomp.
__5.Mummified
__? Unknown

LIVE ANIMAL - Condition and Disposition:
Check one or more: __1.Released at site
__2.Sick
__3.Injured
__4.Died
__5.Euthanized
__6.Rehabilitated and released
__? Unknown
Transported to: _____

(Died) / (Released) Date:_____

TAGS APPLIED?: (Yes) / (No)
TAGS PRESENT?: (Yes) / (No)

	Dorsal	Left	Right
Tag No.(s):	_____	_____	_____
Color(s):	_____	_____	_____
Type: Placement	_____	_____ Front/Rear	_____ Front/Rear

CARCASS - Disposition, check one:
Check one: __1.Left at site
__2.Buried
__3.Towed
__4.Sci. collection (see below)
__5.Edu. collection (see below)
__6.Other _____

_____
__? Unknown
NECROPSIED? (Yes) / (No)

MORPHOLOGICAL DATA:
Sex - Check one: __1.Male
__2.Female
__? Unknown

Straight Length:_____(cm)/(in)/(est)

*Weight:_____(kg)/(lb)/(est?)

PHOTOS TAKEN? (Yes) / (No)

REMARKS: _____

_____

_____

_____

DISPOSITION OF TISSUE/SKELETAL MATERIAL: _____

_____

_____

_____

OMB#0648-0178 It is estimated that completion of this form requires 20 minutes.

APPENDIX Ic

Acronyms Used in the Oiled Wildlife Response Plan

ACP	Area Contingency Plan
ART	Alternative Response Technology
ATV	All Terrain Vehicle
CDFG	California Department of Fish and Game
CDPR	California Department of Parks and Recreation
CMMSN	California Marine Mammal Stranding Network
CWHR	California Wildlife Habitat Relationship System
CDWR	California Department of Water Resources
EPA	U. S. Environmental Protection Agency
ESI	Environmental Sensitivity Index
FOSC	Federal On-scene Coordinator
GIS	Geographic Information System
GPS	Global Positioning System
IAP	Incident Action Plan
ICS	Incident Command System
ISB	In-situ Burning
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
OPA-90	Oil Spill Pollution Act of 1990
OSPR	Office of Spill Prevention and Response
OSPRA	Oil Spill Prevention and Response Act
OWCN	Oiled Wildlife Care Network
PRP	Potential Responsible Party
SCAT	Shoreline Cleanup Assessment Team
SLC	State Lands Commission
SOSC	State On-scene Coordinator
SWRCB	California State Water Resources Control Board
UC	Unified Command
USCG	U. S. Coast Guard
USFWS	U. S. Fish and Wildlife Service
WBD	Wildlife Branch Director
WO	Wildlife Operations

APPENDIX IIa

Oiled Wildlife Care Network

Mission

The Oiled Wildlife Care Network strives to ensure that wildlife exposed to petroleum products in the environment receive the best achievable treatment by providing access to permanent wildlife rehabilitation facilities and trained personnel that are maintained in a state of readiness for oil spill response within California.

History

Due to the potential risk to California from oil spill events, the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act was passed in 1990. This act required the administrator of Department of Fish and Game, Office of Spill Prevention and Response (OSPR) to establish rescue and rehabilitation stations for aquatic birds, sea otters, and other marine mammals. This legislative mandate was reaffirmed in 1993 when Senate Bill 775 (Watson) was passed. The OWCN is sponsored by OSPR from interest earned on the state's Oil Spill Response Trust Fund, and its management is a collaborative program with the Wildlife Health Center located in the School of Veterinary Medicine at the University of California, Davis.

The Oiled Wildlife Care Network maintains permanent facilities and uniquely trained personnel in a state of readiness for treating wildlife exposed to petroleum products in the environment. The network, comprised of 24 wildlife organizations and rescue rehabilitation stations, also carries out a competitive research grants program and comprehensive training programs. Our oil spill response capabilities include immediate mobilization upon notification, search and collection, rehabilitation, release and post-release survival studies to evaluate the efficacy of our rehabilitation techniques.

For more information about the OWCN, please refer to our web site at:
http://www.vetmed.ucdavis.edu/owcn

To contact the OWCN for a spill drill, please call: 530-752-4167
To activate the OWCN for an oil spill, please page either:
Dr. Jonna Mazet 916-556-7509 or
Dr. Scott Newman 916-523-7941

APPENDIX IIb

VOLUNTEERS IN WILDLIFE OPERATIONS
OIL SPILL CONTINGENCY PLAN FOR CALIFORNIA

General
For health and safety reasons, volunteers cannot be directly used in the cleanup of oiled beaches and waters, nor can untrained volunteers be used in many situations involving collection and handling of oiled wildlife. However, wildlife transport, husbandry and rehabilitation operations can be substantially benefitted by volunteer resources, and volunteers can be quickly trained before or during a spill to participate in many activities. In these settings, volunteers can and have made significant contributions in responding to the needs of oiled wildlife. With appropriate training and direction, potential safety hazards to the volunteers, as well as to the wildlife and environment they wish to save, are greatly reduced, and volunteers gain the recognition they deserve as a critical element of effective oil spill response.

Oil spill response utilizes the Unified Command (UC) system, a structure designed to organize and facilitate operations, logistics, planning and financial components of a response. Operating through an UC can be especially helpful when there is an expectation that multiple agencies (local, state, and federal agencies) may respond. If the spiller of the oil or other product has been identified (the Responsible Party, or RP), then the RP is also part of the UC. Volunteers fall under the Operations Section of the UC.

Partners in Volunteer Coordination
The California Office of Spill Prevention and Response (OSPR) and the Oiled Wildlife Care Network (OWCN) are both involved in volunteer planning and coordination before and during oil spill response. The OSPR program supports the OWCN through interest earned on its Oil Spill Response Trust Fund. The University of California, Davis, School of Veterinary Medicine Wildlife Health Center administers the OWCN, created by the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990.

OWCN. In the event of an oil spill, the OWCN, a cooperative system of specialized wildlife health centers, under the direction of the Wildlife Branch Director and the UC, responds with prompt, coordinated rescue of affected wildlife. When marine animals such as sea birds, marine mammals, and sea turtles are affected by an oil spill, trained personnel which may include volunteers, retrieve the oiled animals, evaluate their need for treatment, and remove the toxic products from the animals. Some animals are given on-site treatment, but most go to the closest OWCN treatment facility where experts are prepared to respond and facilities can house

large numbers of animals. The OWCN participants operate at 21 sites along the California coast from Crescent City to San Diego.

Nearly all volunteer use (23 different tasks) during a spill is with wildlife operations, and this aspect of volunteer coordination during a spill is overseen by a designated OWCN Volunteer Coordinator. Designation of the OWCN Volunteer Coordinator is made at the time of the spill, upon recommendation by the OWCN Director and approved by the UC. In most cases, the OWCN Volunteer Coordinator during a given spill will be the one(s) already serving as volunteer coordinators for the particular OWCN facilities used in a response.

OSPR. A few potential volunteer tasks pre-impact beach cleanup, beach site security, are not coordinated through the OWCN. The OSPR Statewide Volunteer Coordinator serves in the coordinating function for these tasks, although it is anticipated the OSPR Statewide Volunteer Coordinator will follow essentially identical notification, activation, induction and ongoing coordination procedures used by the OWCN Volunteer Coordinator. In some coastal regions, individual groups or organizations may choose to assist OSPR in planning and coordinating these remaining volunteer tasks.

Types of Volunteers

Volunteers can usually be characterized as belonging to one of two categories: 1) Pre- identified, and 2) convergent. Pre-identified individuals have previously worked on spills for the OWCN or have worked in one of the 21 OWCN facilities on research and rehabilitation tasks, and their names and contact information are available for use by the OWCN. Others are identified through academic institutions (several of which are also associated with the OWCN), docent programs, non-profit conservation organizations, and other local, state and federal agencies. While these volunteers have been pre-identified and can be readily contacted during a spill response, training levels will vary. Convergent volunteers are usually individuals from the general public who spontaneously appear to participate in the cleanup effort following an oil spill; they may or may not have had access to training relevant to oiled wildlife operations.

Sources of Volunteers

The main body of pre-identified volunteers are those that have previously worked on spills for the OWCN, and/or have participated in OWCN Supervisor's Training.

Lists of potential volunteers from other sources (universities, non-profit organizations, other agencies) are not maintained by the OWCN, but by the individual organizations, agencies and institutions. The OSPR and OWCN maintain regional lists of key contact people for these other organizations, and utilize those contacts during oil spill notification and activation. These key contact people are

asked to assess the ability and availability of their volunteers and members for an oil spill response in their area, and to fax lists of available volunteers and their contact information to the OWCN Volunteer Coordinator working on each spill.

Convergent volunteers are primarily accessed through media resources, using UC-approved methods, press releases and spokes people. General information on the spill event and the OWCN Volunteer Coordinator phone number to call are released through these means. The OWCN Volunteer Coordinator maintains a dedicated phone line and answering machine to take incoming calls, with the announcement message on the answering machine also serving to provide day-to-day updates on the need for volunteers. Phone bank volunteers at the OWCN facility response to inquiries from potential new volunteers, briefing interviewing and scheduling them under the guidance and direction of the OWCN Volunteer Coordinator.

The OSPR Statewide Volunteer Coordinator may also gain UC approval to activate their toll-free phone number that can take and forward names and phone numbers of interested volunteers to the OWCN Volunteer Coordinator.

Depending on the counties in which a spill occurs, the County Volunteer Center may also be able to assist by taking and forwarding names and phone numbers of potential interested volunteers to the OWCN Volunteer Coordinator.

OWCN Volunteer Induction During Spill Response

Most volunteer induction takes place at the OWCN facility responding to each spill. In some cases, field-based volunteers that do not regularly log in and out at an OWCN facility are instead supervised by the OWCN staff person leading their team. That OWCN staff member, rather than the OWCN Volunteer Coordinator, is the primary person responsible for making sure any necessary paperwork (*e.g.*, State Volunteer Service Agreement, Oath of Allegiance, Authorization to Use Private Vehicle on State Business, time and expense records) is appropriately completed, maintained, submitted and filed.

All volunteers reporting for work at and through an OWCN facility are required to complete the following paperwork:

OWCN Forms
- Volunteer Application
- Timesheet

State Forms
- Volunteer Service Agreement
- Oath of Allegiance
- Authorization to Use Private Vehicle on State Business (if needed)
- Health Questionnaire (if needed)
- Travel Expense Claim (if needed)

UC Forms
Incident Personnel Log

The OWCN Volunteer Coordinator:
Reviews all paperwork for completeness and signs where necessary
Reviews log-in/log-out requirements with each volunteer
Makes and gives name badge to the volunteer
Schedules HAZCOM training if needed
Schedules Site Safety training (or has each volunteer review Site Safety Plan)
Schedules viewing of wildlife rehabilitation videotape
Provides facility orientation, emphasizing areas for volunteer meals, relaxation, showers; areas of facility that have restricted access; general on-going volunteer tasks that the volunteer should be capable of completing; shows volunteers areas where personal protective gear and cleanup materials are stored and how they are to be used; introduces new volunteer to lead staff and volunteers at the facility; assigns initial tasks to the volunteer.
Provides for volunteer meals
Assigns/oversees phone bank volunteers
Oversees volunteer scheduling
Oversees inventory/reordering of supplies needed by volunteers; makes UC-approved purchases
Anticipates facility tasks that could be undertaken by volunteers; reassigns volunteers as necessary
With lead OWCN staff, assesses ongoing need for volunteers
Provides updates on volunteers to UC as requested
Maintains computer databases and paper files on volunteers
Provides volunteer counseling; makes "best fit" volunteer job assignments
Assists with personnel cost accounting/OWCN invoicing as necessary
Provides volunteer recognition at end of spill
Participates in oil spill debriefings as requested

On-going Planning Efforts of the OWCN Volunteer Coordinators

It is anticipated the OWCN Volunteer Coordinators will be actively involved in assuring that local, state and federal oil spill contingency plans have up-to-date information on how OWCN Volunteer Coordination will be implemented in their regional area. It is especially important to maintain updated contacts lists for sources of volunteers in each area, assure that elements of volunteer induction and coordination through their facility has been addressed, and make sure Spill Contingency Plans reflect regional experience, available resources and shortfalls. This can best be achieved through work with Area Contingency Planning Committees and its subcommittees, and through direct and on-going communications with the OWCN Director.

For OWCN Volunteer Coordinators that frequently respond off-site to spills, a "Go Box" of critical Volunteer Coordination materials should be prepared and periodically refreshed. Information on how to supply and pay for Go Box components can be determined through consultation with the OWCN Director.

APPENDIX IIIa

WILDLIFE INTAKE UNIT PROTOCOLS

A Supplement to the Wildlife Response Plan

Introduction

This document is intended to serve as a supplement to the Wildlife Response Plan for California as written in Section 9710 of the Area Contingency Plan (ACP). The purpose of these protocols is to provide operational guidance to Intake Unit personnel (sometimes referred to as the Oil Spill Wildlife Response Team - OSWRT) as they process debilitated animals and carcasses at wildlife processing/intake centers during an oil spill response. The Intake Unit is located within the Processing Group of the Wildlife Branch of the Unified Command/Incident Command System (UC/ICS). Intake Unit personnel will be supervised by the Processing Group supervisor and work very closely with the Veterinary Services Group. These protocols have been adapted and further refined from the 1998 draft report "Protocols for the Oil Spill Wildlife Response Team," prepared by Point Reyes Bird Observatory (PRBO) for the California Department of Fish & Game - Office of Spill Prevention and Response (CDFG-OSPR).

Wildlife Handling

This section will provide a brief and basic overview of the techniques for handling marine birds and mammals. It is included here to emphasize worker safety. It is not a substitute for proper training, experience or supervision. Under all circumstances when handling any wildlife, proper personal protection equipment (PPE) must be worn (e.g. safety glasses or face shield, vinyl or nitrile gloves, protection outer covering for clothing).

Handling Live Birds. Teamwork is essential to minimize stress to oiled birds. All personnel must be trained and experienced using methods that minimize human contact and captivity. Simultaneously, handlers must protect themselves from injury and oil contamination. They must also protect the bird from oil contamination – even when birds do not appear oiled, new gloves must be worn for each bird handled. Towels can be folded to act as "straight jackets," restricting the motion of the bird. Covering their heads, specifically the eyes, with care taken to not cover the nares and impede respiration may calm them. One good method for maintaining physical control over a marine bird is to hold it pressed against your abdomen. This can be accomplished with one hand, allowing for freedom of motion with the other. Since marine birds defend themselves with their bills, it is important to have control of their head at all times. Protective eyewear should be used, particularly with certain species such as grebes, loons or egrets. Most shorebirds can be comfortably held with one hand using the "bander's grip", which holds the neck between the middle and forefinger and pins the wings against the body with the same hand. Personnel unfamiliar with this method should be trained how to do it. Larger birds and some species with sharp bills should be carried with its head facing toward the handler's back. Aggressive birds such as

raptors, cormorants and herons can seriously injure handlers. The most important consideration is to restrain the head firmly without causing any injury. In addition, raptors should have their legs and talons secured. When restraining a bird, it is extremely important to be sure that the wings are folded in their natural position. This ensures that a bird's injuries are not exacerbated and that new injuries are not inflicted during handling. Remain calm while handling all wildlife, but remain alert as well; a bird that is calm at one moment may surprise you with its energy at another.

Handling Dead Birds: Minimize direct physical contact with contaminated birds. Do not handle without proper gloves and PPE. Do not handle more than one carcass without replacing gloves. The trustees often consider each specimen as evidence and should be treated as such. Recalls that it is of the utmost importance that dead wildlife are placed into individually labeled bags to prevent cross-contamination.

Handling Marine Mammals. Protocols for handling marine mammals (pinnipeds, cetaceans, sea otters) and sea turtles are standardized and agreed to by interagency agreements among the following trustee agencies: the CDFG, the National Marine Fisheries Service (NMFS), and the U.S. Fish and Wildlife Service (USFWS) (see Interagency Agreements in Appendix Ib and the Sea Otter Oil Spill Contingency Plan in Appendix IIIc of the Wildlife Response Plan; and Oiled Wildlife Care Network (OWCN): Protocols for the care of oil-affected marine mammals). In the event of marine mammal capture, it is likely that all handling and information collection and recording will be performed by personnel from the California Marine Mammal Stranding Network (CMMSN) or veterinarians from the OSPR or OWCN. However, the forms identified in this document should be used for consistency in record keeping.

Personnel

Staff in this Unit can include six basic positions at each center: the Unit leader, a Receiver, a Data Collector, a Data Processor, a Photographer, and an Animal Handler (Table 1). More staff may be necessary if the number of animals entering the center is overwhelming; or less, under light impact situation where staff can perform multiple duties. Since most of the wildlife likely to be oiled are birds, wildlife intake and processing in WO should be conducted by field biologists trained in the systematic collection of information from dead and live birds (Schuster et al., 1998).

Table 1: Intake Unit Personnel

Position Title	Responsibilities
Station Manager	Keeps collection station running smoothly; ensures complete and accurate chain of custody for processed animals; directs activities of collection station personnel; procures additional equipment and oversees station communication.
Receiver	Works in Intake receiving incoming dead and debilitated wildlife from collectors; gives each live or dead animal a unique intake number and makes sure all are separated; responsible for acquiring complete information from collector and recording all such information on the *Chain of Custody Intake Log*; organizes order of processing if there are priority species or emergency cases among live birds.
Data Collector	Identifies birds and wildlife at the processing station, assesses condition and oil data, takes oil sample and bands or tags specimens.
Data Recorder	Keeps accurate, complete records of data collection during processing; records observations; prompts collector for data log information, assists collector when needed.
Photographer	Maintains uniform photographic record of all processed birds and wildlife.
Animal Handler	For live station only; assists data collector with bird handling during photography and banding.

Wildlife Information Collection Procedures

For each oil spill or incident, there will be at least two wildlife processing centers at a given location. One will be for live animals and one for dead. Each wildlife processing center is made up of two basic parts:

- Intake station, through which all wildlife are received,
- Processing station.

Intake for both centers (*i.e*. for both live and dead) can take place at the same location for logistical purposes as long as the two parts are kept separate. Each center will be given a unique station number. For example, the live animal processing center would have two stations, Intake and Processing. Similarly, dead animal processing center would also have two stations.

All debilitated birds, mammals and carcasses will be brought to a wildlife processing center, usually co-located with the rehabilitation facility. Live birds will be kept in crates or cardboard boxes with towels or blankets, with **only one bird per container.** Carcasses and bird body fragments should arrive individually wrapped in aluminum foil or paper bags. **Plastic bags are made from petroleum products and therefore must not be used in direct contact with live or dead wildlife.** Individual dead or debilitated animals must be kept separate to prevent cross-contamination by body contact. Do not handle

without PPE and do not handle more than one specimen without replacing or cleaning gloves.

Intake Station

Once animals are turned over to the processing centers, they become the sole responsibility of Intake Unit personnel and are legally responsible for the management of specimens as well as accurate documentation. Collectors or delivery personnel must remain at the center until all information on the *Chain of Custody Intake Log* (see Attachments) has been recorded.

Separate logs are kept for live birds/mammals and dead birds/mammals. Each should be clearly marked. If live marine mammals enter a processing center, Intake Unit personnel may record chain-of-custody information. However, CMMSN personnel or veterinarians from the OSPR or OWCN will processes the animal to collect the necessary information. Each station and center is given a unique series of intake numbers so as not to overlap. For example, live birds may begin with the intake number 1, while dead birds begin with the intake number 5001. Live and dead non-avian species that arrive should each have its own unique series of intake numbers as well and should be processed in the same manner as described for live or dead birds. A consecutive intake number is assigned to each individual immediately upon delivery and must be clearly marked. For corpses the intake number is written on the paper bag it is placed in. For live animals the intake number is written in more than one location on the carrying box it is in and cross referenced with the temporary leg band number. It is crucial that intake numbers are clearly visible as live birds will be processed in order of their arrival (i.e. intake number sequence), with the exception of priority species or special cases. All individuals are then given to their respective station.

Work is currently in progress (1999) to institute a barcode system to track individuals through the processing and rehabilitation system. It would begin with recovery teams placing field tag labels with preprinted barcodes on the transport container. These field labels would include information on the collector, location (general and GPS coordinate), date and time. Once at the processing center the barcode can be scanned into a database or a new one assigned. Corresponding information will then be entered into the database as the animal is processed.

Wildlife transportation delivery personnel should provide the following information as they admit each bird:

- Collector;
- Collection location – general name, GPS coordinate, and/or beach segment number;
- The date the bird was *recovered* from the beach (record if not the current date); and
- The time the bird was *recovered* from the beach.

The data recorder is responsible for recording this information on the *Chain of Custody Intake Log*. In addition, the receiver must record the time that the animal was received at the processing center, and the collector or delivery personnel must fill out the following:

- Their printed name

- Their signature
- Their telephone number

A. Live Bird Intake

If receiving both live and dead birds at once, process the live ones through Intake first to reduce the amount of time before they can begin the rehabilitation process. The Intake Unit receivers briefly examine the condition of the live birds brought to them and confirm the bird is still alive (if it has died, record in Dead Bird Intake, and note that it was alive when recovered). They are responsible for confirming that each box contains only one individual, that live birds have towels or blankets to keep them warm, and that cloth bags containing live birds do not remain tied closed. Prioritize the birds for the live processing station according to the following criteria:

- Birds of endangered, threatened or special concern should be dealt with first.
- Any birds which appear to be in critical condition should be seen by the veterinarians as soon as possible.
- All other birds should be processed in the order of arrival, which should correspond with the order of their intake number. The intake number must be clearly visible on the carrier box.

B. Dead Bird Intake

Intake Unit receivers must make sure that corpses are packaged properly before passing them on to the dead bird processing station. If a dead bird arrives wrapped in plastic and time allows, the corpse should be removed from the plastic and placed in the smallest paper bag that will accommodate it. The fact that it was initially contaminated by plastic must be noted on the paper bag, as this will be recorded on the *Intake Log*. However when Intake is busy, it is better for the corpse to remain wrapped as it is so that Intake does not slow down. Remind the collector not to use plastic if they recover any additional specimens. Intake Unit receivers must also confirm that each bag that arrives contains only one dead bird, and must place each extra corpse in its own bag with a unique intake number. Be sure to note on each bag that the carcass inside was contaminated by other dead birds so that this information will be put on the *Intake Log* when the bird is processed.

On the outside of each bag containing a dead bird, write (in permanent marker):

- The intake number identifying the individual
- The date the corpse was collected
- The date the corpse was brought to the collection station if different from the collection date
- If the corpse was contaminated by other corpses or by plastic
- Affix a barcode.

The paper bag must be securely taped. All other information will be transferred onto the *Intake Log* as described above. Until they can be processed these individually packaged birds should be stored in boxes or other containers, along with other corpses collected on the same date. If they are not going to be processed until a later date, they should be stored in a locked freezer.

Processing Station

All information collected during processing are recorded on the *Live Bird/Mammal Intake Log* or the *Dead Bird/Mammal Intake Log* (see Attachments). According to interagency agreements, CMMSN personnel or veterinarians from the OSPR or OWCN will process marine mammals.

An Overview of Live Bird Processing

Under unusual circumstances where a veterinary triage unit is not located near the processing center, any bird received at a collection center should be fully processed by Intake Unit personnel as described in the next section before being transported to the OWCN rehabilitation facility. Under these circumstances, one person should handle a given bird and all the processing should take place as quickly as possible so that the bird can be transported as soon as possible. However, this is not an ideal situation as there are numerous reasons for the veterinary triage unit to be located at the same place as the collection center. Should this be a persistent situation during response, it is likely that one of OSPR's mobile veterinary laboratories would be established at the remote location with a veterinarian.

If the collection station and veterinary triage unit are indeed joined or adjacent to one another, as will generally be the case, it is in the best interest of the bird to combine the veterinarian's preliminary examination with processing. To minimize stress to debilitated birds, only one person (an animal handler) should handle each bird during this period. Generally this process will go as follows:

- Intake Unit personnel identifies, bands, and assesses condition and oil information of bird. Numbered color bands are generally used, except for shorebirds which will usually be given USFWS bands. All data is recorded on the *Live Bird/Mammal Intake Log*.
- Veterinarian examines bird and takes feather sample (see Processing Birds part O, below). During this time Intake Unit personnel prepares backdrop for the photograph.
- Bird is photographed, with one Intake Unit personnel taking the photograph and another helping the animal handler steadily and safely hold the bird. The photo log is filled out at this time.
- The bird is no longer the responsibility of the Intake Unit and may now begin the rehabilitation process under the direction of the Veterinary Services Group.
- Details are written on the feather sample and photograph as outlined in the

processing instructions (part O and P, below). Both are filed according to protocol.

Processing Instructions for the *Live* and *Dead Bird/Mammal Intake Logs*

Because techniques and effort involved in information documentation must be uniform at all processing centers, a standardized protocol is presented here. The order in which items are presented corresponds to the *OSWRT Chain of Custody Data Log for Beachcast Wildlife*. Remember that proper PPE and procedures should be employed at all times to ensure protection from contamination.

On top of each *Intake Log* form, record the station number and location (specify if for LIVE or DEAD birds), the year of processing, and the printed names of all personnel involved. All personnel must sign their initials next to their names.

The processing of dead birds will take place on a large, clean piece of aluminum foil that the specimen will be wrapped in after processing.

The codes that are used to complete the *Intake Log* are also found in a one page summary (see Attachments).

a. **Intake Number:** The unique number (using a different sequence for each station) used to identify each individual animal; prescribed upon intake. (A bar code system may be eventually be implemented, in which a unique, pre-printed bar code will be used to identify each individual animal.)

b. **Location Collected:** Record location name, beach segment, and/or GPS coordinates

c. **Date Collected:** Record the month and day the animal or carcass was collected. The year only needs to be specified at the top of each Log page. It is the responsibility of the Intake Unit receivers at intake to obtain this information from the delivery personnel. For corpses, the date collected will be written on the bag. For live animals the date will only be written on the box..

d. **Date Arrived:** Enter the month and day the animal or carcass arrived at the processing station. The year only needs to be specified if different from the year in which the animal is processed. It is the responsibility of the Intake Unit receivers at intake to write this date on the corpse bag. For dead birds that were collected the same day in which they arrived at the station, only one date will be written on the bag. Live birds will always be processed the day of arrival.

e. **Date Processed:** Enter the month and day of processing.

f. **Time 24h:** This is the time which processing of the live or dead animal commences. The time is entered in military fashion.

g. **Species:** Great care must be given to the accurate identification of beachcast animals. It is best to identify all organisms to their species level. However, this task may be extremely difficult as they are often heavily oiled, fragmented, or, at worst, oiled and fragmented. If an animal is not readily identifiable, and if time permits, consult NOAA's *Beached Marine Birds and Mammals of the North American West Coast: A Revised Guide to their Census and Identification, With Supplemental Keys to Beached Sea Turtles and Sharks*. This field guide is designed to aid in the identification of oiled species, even when only skeletal fragments remain. It is important to

become familiar with this guide. Other reference manuals that may be useful are: (1) *Seabirds: An Identification Guide* (P. Harrison); (2) *Ducks, Geese and Swans of North America* (Bellrose); (3) *Gulls: A Guide to Identification* (P.J. Grant); (4) *Shorebirds: An Identification Guide* (P. Hayman et al.); (5) *National Geographic Field Guide North American Birds*; (6) *Peterson's Field Guide to Western Birds*; (7) *Marine Mammals of the World* (T.A. Jefferson, S. Leatherwood and M.A. Webber); and (8) *Skeletal Identification of California Sea Lions and Harbor Seals for Archeologists* (J.C. Kasper).

Even with the aid of these guides, species identification may be impossible. In these cases a more general taxonomic category may be assigned. The lowest taxonomic designation that can be made with certainty should be recorded, such as "gull", "loon", "pinniped". It may be necessary to leave the designation as "seabird" or just "bird" if the remains are too damaged, or if there is not adequate time to make a positive identification. If a bird is identified to species, use the standard four-letter abbreviation. These are listed in the Attachments. If the species is not listed there and the code is not known, write out the entire name of the species in the notes column.

h. **Band/Tag Number**: All birds, regardless of condition, will be fitted with bands provided by OSPR. Preferably, numbered color bands will be used, except for live shorebirds which are given metal USFWS bands. Band numbers will be used to track birds throughout the chain of custody and rehabilitation, particularly for live birds entering the rehabilitation process which often lose their intake number. For example, if a bird were to die at a rehabilitation center after receiving a band at a processing station, the band number would allow the Wildlife Impact Documentation Unit or the Intake Unit to indicate that bird as dead in its tally and to track it back to its intake and Intake Log information. To increase processing speed in the dead bird data collection station, a single size of color bands can be used for all dead specimens, and can simply be tied with twine or wire to those which it does not fit. Once a band is in place, the band number is read to the data recorder. The accurate recording of this information is critical.

A few birds that arrive may already be bearing bands. The number should be read to the data recorder and the number should be recorded in the section provided for notes. For larger birds, a new color band is fitted on the opposite leg; the new number is recorded. For shorebirds that arrive already bearing a USFWS band, this band will serve as their band number and they will not be fitted with an additional one.

Plastic NMFS tags should be fitted on a hind flipper of all phocids (seals) and sea turtles, and the fore flipper on otariids (sea lions and fur seals) . If such tags are not available simply tie a bird band to the carcass.

i. **Condition:** A code is entered to indicate the physical condition of the animal at the time of processing. Live birds are either:

- 0=alert, or
- 1=unresponsive, weak (1). These should be processed with haste.

Dead birds are either:

- 1=freshly dead and whole
- 2=decomposing whole carcass
- 3=body parts only, fresh
- 4=body parts only, decomposing
- 5=desiccated, mummified carcass

The details of the fragment should be described in the notes section (i.e. “wing only”). The notes should also describe the degree the carcass has been scavenged, if at all, as: lightly scavenged, moderately scavenged, or heavily scavenged.

j. **External Oil Visible:** 1=Yes or 2=No.

k. **Oil not Visible, but Oiled:**

- 0=No
- 1=Yes
- 2=Yes, plumage malaligned or parted
- 3=Yes, plumage sticky
- 4=Yes, skin wet/not waterproof
- 5=Yes, skin burn.

l. **% Oiled:** Enter a code for the extent of the body surface covered by oil.

- 0=no apparent oil. This observation does not necessarily mean that there definitively was no oil, but that none was detected during processing.
- 1=<2% of body
- 2=2-33% of body
- 3=34-66% of body
- 4=67-100% of body covered
- 5=no oil is detected but this may be due to state of carcass. This is sometimes the case if the carcass is heavily scavenged or is excessively wet and sandy.
- 6=no visible oil but has petroleum odor; and
- 7=percent oiled not evaluated.

m. **Where Oiled:** Enter the appropriate code to indicate the body region(s) of the live bird or carcass coated in oil. The codes describe the following areas:

- 0=no apparent oil (see section l above);
- 1=dorsal side
- 2=ventral side
- 3=entire body
- 4=bill/mouth area only

- 5=head only
- 6=wings/fore flippers only
- 7=feet/hind flippers only
- 8=more than one area but not entire body; and
- 9=location not evaluated.

n. **Thickness of Oil:** This is an index of the physical consistency of the oil as it appears on the specimen. It is either described as

- 0=no apparent oil (see section I above)
- 1=no visible oil to assess thickness of, but there is a petroleum odor
- 2=light
- 3=medium
- 4=heavy
- 5=tar; or
- 9=not evaluated.

o. **Sample Taken?**: Oiled feather/pelage samples are collected for chemical fingerprinting from all dead and debilitated wildlife brought to the collection stations in order to determine the origin of each sample. Record this as:

- 0=no sample was taken
- 1=a feather/pelage sample was taken
- 2=a tissue sample was taken; or

If no apparent oil is found on the specimen, a sample still must be taken. It should be taken from the region (live) or regions (dead) where oil is commonly found, such as the breasts or the flanks. Samples are to be taken without contact with human skin, plastic, or gloves or equipment that were used on a prior specimen without being replaced or cleaned with alcohol between uses. Oils from human skin and from petroleum products used to produce plastics can contaminate the sample and invalidate chemical analysis. Most gloves contain petroleum products as well, nitrile or vinyl gloves are therefore the best choice. Do not use latex. As nitrile gloves will show a paraffin peak when analyzed, **one clean glove should be placed in a specimen jar and included with samples for analysis.**

For live and dead wildlife, feathers or pelage can be pulled with tweezers or by snipping a small sample with scissors. Body feathers and fur will then be able to grow back. Place the sample in foil, then place in an envelope or evidence jar. On both the foil and the envelope, or on the evidence jar, the following must be clearly written:

- Collector;
- Collection location and date;
- Intake number;

- Species (four letter code);
- Band or tag number;
- Station number;
- Date of processing; and
- Time that processing began.

Place the samples in a designated container or in freezer bags. Freezer bags should be clearly marked as feather samples, along with the processing date, station number, and range of intake numbers. Samples must be kept in a freezer for preservation.

p. **Photo Taken?:** All dead and debilitated animals will be photographed; even animals with no apparent oil must have a photo taken of them. Record 0 if no photograph is taken and 1 if a photograph is taken. A photographic log will be kept at each collection station by the photographer. Position the bird so that the oil on the bird is visible in the frame. It is best to use a Polaroid camera as it can then be ascertained immediately if the picture does not come out and it can be retaken. The use of digital cameras is also acceptable, as the results can be immediately viewed. Many photographs can also be stored on a single CD-ROM. The standard photo backdrop should clearly show, written in heavy black marker:

- Date of processing
- Station number
- Intake number
- Species code; and
- Band number.

If any of this is not clearly visible it should be rewritten on the bottom of the picture or, if possible, the picture should be retaken. The time the photo was taken should also be written on the bottom of the picture. On the *Photographic Log* (see Attachments) record the following:

- Intake number
- Species code
- Band number
- Date
- Time the photograph is taken
- Name of the photographer
- Camera roll (if using a Polaroid camera, write “Polaroid here); and
- Frame number (if using a Polaroid camera, write “n/a” here).

On the back of the log record if necessary any additional notes pertaining to the photograph; be sure to cross-reference the notes with the intake number. Use of photographic equipment and photo log protocols will be explained, demonstrated and practiced at training workshops. Photo logs, in addition to physical evidence, will be retained for later use. Photos should be filed in order of intake number and date.

q. **Bag Color/#:** Animals that arrived dead should be placed in separate bags. After processing each individually wrapped animal should be packaged together in morgue bags or boxes for storage. Ideally, colored bags or labels could be used for quick reference later, based upon the following criteria:

- "Special Status" (Endangered, Threatened, or Species of Special Concern) carcasses that are identified should be placed in individually numbered red bags. The bag color and number is recorded on the *Intake Log*.
- All other carcasses that are identified to species are placed in individually labeled yellow bags. The bag color and number is recorded on the *Intake Log*..
- Fragments and carcasses that were *not* identified to species (often due to degree of oiling or scavenging) should be placed in individually numbered green bags. The bag color and number is recorded on the *Intake Log*.

The purpose behind this sorting is to facilitate the retrieval of certain individuals (particularly special status) for verification of species and determination of sex, age, breeding condition, or cause of death.

r. **Box #:** If carcasses have to be moved to another location, often via a moving van, they will need to be boxed to prevent damage. Boxes may also be the best method of facilitating storage at OSPR facilities. Only morgue bags of the same color should be placed in a box together. Each box should be labeled consecutively and it must be recorded which box each morgue bag went into, which must then be converted onto the data log for each individual specimen.

s. **Notes:** All additional observations are written in the lines on the reverse side of the data log. Be sure to write the intake number corresponding to the notes. Notes may possibly include any of the following: location or beach segment of collection; any measurements taken; age, sex, or breeding condition if determined; degree to which body has been scavenged, including which parts were recovered if body not whole; any conspicuous cause of death not related to oil (e.g. gun shot wound); and a note if the specimen was known to have been contaminated by other petroleum products (e.g. if it was wrapped in plastic) or other carcasses. Any other observations or details of collection can be recorded here as well.

Packaging Carcasses After the Completion of Processing

Once the Intake Log has been filled out for a given carcass, it is to be wrapped completely in aluminum foil so that no part of it is visible. It is then placed in the smallest paper bag that will accommodate it. The data recorder should prepare this bag so that it is ready upon completion of processing. The same information which is recorded on the feather sample is written on the outside of the corpse bag in black marker:

- Collector;
- Collection location and date;

- Intake Number;
- Species Code;
- Band Number;
- Date of Processing;
- Time which processing began, and
- Station Number.

The bag is then sealed securely with masking tape and placed with other corpse bags until it can be properly morgued.

Procedures for Handling Animals that Die While in Rehabilitation

Animals that die after entering veterinary care may return to the hands of OSWRT personnel for data, organization, and storage purposes. For such animals, the following is recorded on a separate log sheet: intake number, band number, species, arrival date (if known), and date of death. Keeping track of this data is often very helpful to OSPR/OWCN veterinarians, as it allows them to more accurately track the fate of their patients, many of whom no longer retain their intake number and must be identified by their band number. These animals are wrapped in foil and placed in paper bags with their intake number, species code, and band number written on the outside of the bag, as well as the live animal station number, to distinguish them from animals which arrived dead. These animals are then morgued in the same process used for birds that arrive dead (see above). However, they are not to be placed in the same morgue bags as those from the dead bird station and generally should be given a different sequence of bag numbers. For example, birds morgued from the dead animal processing station might go into yellow bags 1 through 20; and those that arrived alive, but dead into yellow bags 101 and up. These subsequent morgue bags and/or boxes should then be recorded on the *Live Bird/Mammal Intake Log* sheet so that an individual specimen can be easily retrieved if needed.

Demobilization:

Demobilization is initiated when the rate of birds and other oiled wildlife washing ashore is approaching zero and search and rescue consequently stops, and is complete once all the birds and carcasses are processed and morgued. Due to the unpredictable nature of oil spills, the duration of processing center operation will vary. Orders to demobilize will come via chain of command though the Wildlife Branch Director and Processing Group Supervisor. Standard checkout and demobilization procedures will be followed as outlined in the Wildlife Response Plan and the ICS.

Attachments

1. Suggested Equipment List for the Processing Station
2. Chain of Custody Intake Log
3. Live Bird/Mammal Log
4. Dead Bird/Mammal Log
5. Codes for Live & Dead Bird/Mammal Intake Logs
6. Avian Species Codes and Status
7. Marine Mammal & Sea Turtle Species Codes and Status

Equipment List

Items Needed at the Wildlife Processing Center

Aluminum foil rolls – sizes large and medium.
Awnings to keep out of sun and rain, if indoor facilities are not provided
Banding Pliers
Band size measurement device
Beached Marine Bird and Mammals of the North American West Coast (2 copies)
Bird bands - numbered color bands
Bird bands sizes 1 – 4 (USFWS aluminum)
Bird carrying boxes, cardboard/plastic pet carriers for live bird storage
Boxes, small for storage
Butcher paper rolls for covering surfaces
Calipers
Cellular phones
Chairs
Cleaning fluid, heavy duty
Clipboards (7)
Clocks or wrist-watches (2)
Coffee makers
Copies of protocol
Copies of Species List
Copies of Index to Reference Guides
Cotton balls
Drinking water
Envelopes, letter-size
Evidence Tape
File boxes for data forms
File boxes for photographs
File boxes for feather samples
Flashlights
Forms (multiple copies): Live and Dead Bird/Mammal Intake Logs, Chain of Custody, Photographic Log, Post Arrival Mortality Log
Foul weather gear
Freezer ziploc bags for individual storage – large
Generators
Glass specimen/evidence jars
Gloves – disposable nitrile or vinyl, all sizes
Hefty garbage bags
Human First Aid Kit
Identification Guides
Identification badges
Lighting for after sunset
Manila folders (letter size)

Items Needed at the Wildlife Processing Center: continued

Markers – thick black
Markers – thick colored
Markers – permanent
Pagers
Paper – 8.5" x 11"
Paper bags – double-strength, "lunch size
Paper bags – grocery size
Paper towels
Polaroid or Digital Camera (2)
Polaroid Film
Refrigeration and freezers for corpses and samples
Rubbing Alcohol
Rulers – regular and for photographs
Scalpels, disposable
Scissors – regular (2 pairs)
Scissors – surgical (1 pair)
Small gauge aluminum wire to secure bands to fragments
Sponges for cleaning
Standardized backdrop for filming (i.e. cardboard)
Tables, waist-high
Tape, duct
Tape, masking (2")
Tape, clear packaging
Towels to place in live bird carrying boxes
Transportation between collection stations and hotels for team members
Tweezers (large)
Twine/String
Tyvek/Kleenguard Suits
Water and soap
Water proof pens
Wind breaks, something to protect workers from the wind
Wing chord rule – large (300mm or greater)

Chain of Custody Intake Log

Oiled Wildlife Care Network/Oil Spill Wildlife Response Team

Date: **Station Number:** **Location/Spill Name:**

Intake Number	Field Personnel	Signature	Phone Number	OWCN/OSWRT Personnel	Signature	Time Received	Species	Collection Location

Station:	
Location/Spill Name:	
Year of Processing:	
Page of	

LIVE BIRD/MAMMAL LOG
OWCN/OSWRT

Station Manager:
Data Collector:
Data Recorder:
Photographer:

Intake No.	Date Coll'ted m/d	Date Arrived m/d	Date Proc'd m/d	Coll'tion Location	Time Proc'd 24 hr	Species	Band Number	Extern. Oil Visible?	Oil not visible but oiled?*	Feather/oil Sample Taken ?	Photo Taken ?	Disp. Status	Disp. Date m/d	Morgue Bag/ Box	Bar Code

*Oil not visible but animal is oiled based on one or more of the following: smell oil, plumage malaligned/parted or sticky, skin wet/not water-proof, skin burns

Date:_____ Station:_____ Backside of Live Data Log Page ____ of ____

Intake no.	Record All Notes Here (i.e. location details, any measurements taken, sex, age, breeding condition, how determined, degree of scavenging, etc.)

Station :	
Location/Spill Name:	
Year of Processing:	
Page of	

DEAD BIRD/MAMMAL LOG
OWCN/OSWRT

Station Manager:	
Data Collector:	
Data Recorder:	
Photographer:	

Intake No.	Date Coll'ted m/d	Date Arrived m/d	Date Proc'd m/d	Coll'tion Location	Time Proc'd 24 hr	Species	Band Number	Cond-ition	Extern. Oil Visible?	Oil not visible but oiled ?*	%Bird Oiled or Sheened	Depth of Oil	Where Oiled	Feather/Oil Sample Taken ?	Photo Taken?	Morgue Bag/ Box	Bar Code

*Oil not visible but animal is oiled based on one or more of the following: smell oil, plumage malaligned/parted or sticky, skin wet/not water-proof, skin burns

Date:_____ Station:_____ Backside of Dead Data Log Page ____ of ____

Intake no.	Record All Notes Here (i.e. location details, any measurements taken, sex, age, breeding condition, how determined, degree of scavenging, etc.)

Codes for OWCN/OSWRT Live & Dead Bird/Mammal LOG Forms

Record collection station number and location, year, and get printed names and initials of personnel present at the collection station while the animals listed on the page were processed.

Intake #: Using a different sequence for each station, record i.d. number which animal was given upon arrival.

Date Collected: Record the date on which the animal was collected.

Date Arrived: Record the date on which the animal was brought to the collection station. Include year only if different from year of processing.

Date Processed: Record month and day of processing.

Collection Location: Location from which the animal was retrieved.

Time 24hr: Record the time when processing for this animal began. Use 24hr military format.

Species: Use the standard four-letter abbreviations if the species name is known. If the species is unknown, indicate the lowest taxonomic category that can be determined (i.e. gull; alcid; bird).

Band #: For all recovered birds (live or dead) enter the color and number (i.e. B198 if Blue band #198) or simply the band number (if USFWS band) of the band placed on the metatarsus. If carcass is incomplete, the band can be placed elsewhere (i.e. sternum) or else should be secured to the carcass with string or wire. For turtles or phocids, plastic NMFS tags should be fitted on the hind flipper. For otariids, tags go on front flipper

Condition: (for dead animals only) **1**=freshly dead; **2**=decomposing whole carcass; **3**=body parts only-fresh; **4**=body parts only-decomposing; **5**=desiccated, mummified carcass.

External Oil Visible: **1**=yes; **2**=no, may be jet fuel, diesel, gasoline, vegetable oil, fish oil or other.

Oil Not Visible But Oiled?: **0**=no; **1**=yes, smell oil; **2**=yes,plumage malaligned or parted; **3**=yes, plumage sticky; **4**=yes, skin wet/not waterproof; **5**=yes, skin burn.

% of Bird Oiled or Sheened: (for dead animals only) **1**=<2% of body; **2**=2-33% of body; **3**=34-66% of body; **4**=67-100% of body covered; **5**=oil detected but extent undeterminable due to state of carcass; **6**=no oil detected but this may be due to state of carcass; 7=was not evaluated.

Depth of Oil: (for dead birds only) **0**=no apparent oil; **1**=superficial; **2**=moderate; **3**=deep; **4**=tar; **5**=not evaluated.

Where Oiled: (for dead animals only) **0**=no apparent oil; **1**=dorsal side only; **2**=ventral side only; **3**=entire body; **4**=bill/mouth area only; **5**=head only; **6**=wings only/fore flippers; **7**=feet only/hind flippers; **8**=more than one area but not entire body; **9**=was not evaluated.

Sample Taken?: Take a sample from oiled locations. If no apparent oil, take samples from areas which are frequently oiled. **0**=no; **1**=feather/fur sample taken; **2**=tissue sample taken. Place a copy of Intake #, species code, band number, processing date, spill event name, and processing station on both the envelope AND foil in which sample is placed.

Photo Taken?: **0**=no; **1**=yes. If yes, attach barcode and write the time it was taken on photo (if polaroid). In photo itself backdrop should clearly show: date, intake #, species code, and band number, and processing station

Morgue Bag/Box Color/#: Indicate the Color/Number combination of the morgue bag in which the corpse is placed for storage, i.e. Y5 for yellow bag number 5. If morgue bags were placed in boxes for movement or storage, indicate box number here.

Bar Code: Attach bar code sticker.

Notes: Indicate whether any notes have been taken for this animal on the reverse side of the data sheet. On this reverse side write the Intake #; and notes may include any of the following: measurements taken; age, sex or breeding condition if determined; which parts were recovered if body not whole; any conspicuous cause of death if not related to oil (e.g. gun shot wound); and a note if the specimen was known to have been contaminated by other petroleum products (e.g. if it was wrapped in plastic) or other carcasses. Other observations or details of collection can be recorded here.

Avian Species Codes and Status

Bird species, species status, name abbreviations, suggested USFWS band sizes, likelihood of each to be processed at wildlife processing centers, and the color of the numbered bag in which a carcass should be stored. ***Species of special status (endangered, threatened, special concern) are to be placed in red bags. All other identified carcasses are to be placed in yellow bags. Unidentified fragments or carcasses are to be placed in green bags.*** This table is not exhaustive, so it is possible that you will encounter species not appearing in this table. In general they should be placed in yellow bags if not species of special status. This table is generalized for all of coastal California. Birds are listed in alphabetical order.

Species	Abbr.	Band	Likelihood	Bag Color
Albatross, Black-footed	BFAL	7B	Rare	Yellow
Albatross, Laysan	LAAL	7B	Rare	Yellow
Albatross, Short-tailed ***	STAL	8	Extremely Rare	Red
Alcid, Unidentified	ALCI		Common	Green
American Kestrel	AMKE		Rare	Yellow
Auklet, Cassin's	CAAU	3B-3A	Common	Yellow
Auklet, Parakeet	PAAU	4	Rare	Yellow
Auklet, Rhinoceros *	RHAU	6-5	Common	Yellow
Avocet, American	AMAV	4-4A	Extremely Rare	Yellow
Blackbird, Brewer's	BRBL		Rare	Yellow
Blackbird, Red-winged	RWBL		Rare	Yellow
Brant	BRAN	7A	Uncommon	Yellow
Bufflehead	BUFF	5	Rare	Yellow
Canvasback	CANV	7A	Rare	Yellow
Coot, American	AMCO	6-5	Rare	Yellow
Cormorant, Brandt's	BRCO	8	Common	Yellow
Cormorant, Double-crested *	DCCO	8-7B	Uncommon	Red
Cormorant, Pelagic	PECO	7B-7A	Common	Yellow
Cormorant, Unidentified	CORM		Common	Green
Crow, American	AMCR		Rare	Yellow
Curlew, Long-billed	LBCU	5-6	Rare	Yellow
Dove, Rock	RODO		Extremely Rare	Yellow
Dove, Mourning	MODO		Extremely Rare	Yellow
Dowitcher, Long-billed	LBDO	2	Rare	Yellow
Dowitcher, Short-billed	SBDO	2	Rare	Yellow
Dowitcher, Unidentified	DOWI		Rare	Green
Duck, Harlequin *	HADU	5	Rare	Red
Duck, Ring-necked	RNDU	6	Rare	Yellow
Duck, Ruddy	RUDU	6-7A	Uncommon	Yellow
Duck, Unidentified	DUCK		Rare	Green
Dunlin	DUNL	1A-1B	Rare	Yellow
Egret, Great	GREG	7A-7B	Extremely Rare	Yellow
Egret, Snowy	SNEG	6	Extremely Rare	Yellow
Falcon, Peregrine ***	PAFA		Extremely Rare	Red
Falcon, Unidentified	FALC		Extremely Rare	Green
Flicker, Northern	NOFL		Extremely Rare	Yellow
Fulmar, Northern	NOFU	6	Common	Yellow
Gadwall	GADW	6	Rare	Yellow
Godwit, Marbled	MAGO	4	Rare	Yellow
Goldeneye, Barrow's *	BAGO	7A	Extremely Rare	Red
Goldeneye, Common	COGO	6	Rare	Yellow
Goldeneye, Unidentified	GOLD		Rare	Green
Goose, Canada	CAGO		Rare	Yellow
Goose, Greater White-fronted	GWGO		Extremely Rare	Yellow

Species	Abbr.	Band	Likelihood	Bag Color
Grebe, Clark's	CLGR	7A-B	Rare	Yellow
Grebe, Eared	EAGR	5	Common	Yellow
Grebe, Horned	HOGR	6-5	Common	Yellow
Grebe, Pied-billed	PBGR	5-6	Rare	Yellow
Grebe, Red-necked	RNGR	7A	Rare	Yellow
Grebe, Western	WEGR	7A-B	Very Common	Yellow
Grebe, Western/Clark's	WCGR		Very Common	Green
Grebe, Unidentified	GREB		Rare	Green
Guillemot, Pigeon	PIGU	4A	Common	Yellow
Gull, Bonaparte's	BOGU	3-3B	Uncommon	Yellow
Gull, California *	CAGU	5	Common	Red
Gull, Glaucous	GLGU	7A	Rare	Yellow
Gull, Glaucous-winged	GWGU	7A	Common	Yellow
Gull, Heermann's	HEEG	4A	Common	Yellow
Gull, Herring	HERG	6	Common	Yellow
Gull, Laughing *	LAGU		Rare	Red
Gull, Mew	MEGU	4A	Common	Yellow
Gull, Ring-billed	RBGU	4A	Common	Yellow
Gull, Sabine's	SAGU	3	Uncommon	Yellow
Gull, Thayer's	THGU	6	Common	Yellow
Gull, Western	WEGU	6	Very Common	Yellow
Gull, Western x Glaucous-winged	HYBR		Common	Yellow
Gull, Unidentified	GULL		Common	Green
Harrier, Northern *	NOHA		Extremely Rare	Red
Hawk, Cooper's *	COHA		Extremely Rare	Red
Hawk, Red Shoulder	RSHA		Extremely Rare	Yellow
Hawk, Red-tailed	RTHA		Extremely Rare	Yellow
Hawk, Sharp-shinned *	SSHA		Extremely Rare	Red
Heron, Black-Crowned Night	BCNH		Rare	Yellow
Heron, Great Blue	GBHE	7B	Extremely Rare	Yellow
Heron/Egret Unidentified	HERO		Rare	Green
Jaeger, Long-tailed	LTJA	4A-4	Rare	Yellow
Jaeger, Parasitic	PAJA	4A	Rare	Yellow
Jaeger, Pomarine	POJA	5	Rare	Yellow
Killdeer	KILL		Uncommon	Yellow
Kingfisher, Belted	BEKI		Uncommon	Yellow
Kittiwake, Black-legged	BLKI	4A	Common	Yellow
Loon, Arctic	ARLO		Uncommon	Yellow
Loon, Common *	COLO	8	Common	Red
Loon, Pacific	PALO	7B	Common	Yellow
Loon, Red-throated	RTLO	7B	Common	Yellow
Loon, Yellow-billed	YBLO	9	Extremely Rare	Yellow
Loon, Unidentified	LOON		Rare	Green
Mallard	MALL	7A	Rare	Yellow
Merganser, Common	COME		Rare	Yellow
Merganser, Hooded	HOME		Rare	Yellow
Merganser, Red-breasted	RBME	6-5	Rare	Yellow
Merlin *	MERL		Extremely Rare	Red
Murre, Common	COMU	6	Very common	Yellow
Murrelet, Ancient	ANMU	3B-3	Rare	Yellow
Murrelet, Craveri's	CRMU	2	Rare	Yellow
Murrelet, Marbled ***	MAMU	3B-3	Rare	Red
Murrelet, Xantus' *	XAMU	2	Rare	Red
Osprey *	OSPR		Extremely Rare	Red
Owl, Great Horned	GHOW		Extremely Rare	Yellow
Owl, Unidentified	OWLX		Extremely Rare	Green

Species	Abbr.	Band	Likelihood	Bag Color
Oystercatcher,Black	BLOY	5	Rare	Yellow
Peep, Unidentified	PEEP			Green
Pelican, American White *	AWPE	9-9C	Rare	Red
Pelican, Brown ***	BRPE	8-9	Common	Red
Petrel, Mottled	MOPE	3	Extremely Rare	Yellow
Phalarope, Red	REPH	1A	Common	Yellow
Phalarope, Red-necked	RNPH	1B	Common	Yellow
Phalarope, Wilson's	WIPH		Uncommon	Yellow
Phoebe, Black	BLPH		Rare	Yellow
Phoebe, Say's	SAPH		Rare	Yellow
Pintail, Northern	NOPI	6	Rare	Yellow
Pipet, American	AMPI		Rare	Yellow
Plover, Black-bellied	BBPL	3B	Rare	Yellow
Plover, Semipalmated	SEPL	1A-1B	Rare	Yellow
Plover, Snowy **	SNPL	1B,1P	Uncommon	Red
Plover, Unidentified	PLOV		Uncommon	Green
Puffin, Horned	HOPU	5	Rare	Yellow
Puffin, Tufted *	TUPU	6-5	Rare	Yellow
Rail, Black **	BLRA		Extremely Rare	Red
Rail, Clapper ***	CLRA		Extremely Rare	Red
Rail, Virginia	VIRA	2-3	Extremely Rare	Yellow
Raptor, Unidentified	RAPT		Extremely Rare	Green
Raven, Common	CORA		Extremely Rare	Yellow
Redhead	REDH	6	Extremely Rare	Yellow
Sanderling	SAND	1A	Rare	Yellow
Sandpiper, Least	LESA	1-1B	Rare	Yellow
Sandpiper, Pectoral	PESA		Extremely Rare	Yellow
Sandpiper, Spotted	SPSA		Rare	Yellow
Sandpiper, Western	WESA	1B	Rare	Yellow
Scaup, Greater	GRSC	6-5	Common	Yellow
Scaup, Lesser	LESC	6-5	Common	Yellow
Scaup, Unidentified	SCAU		Common	Green
Scoter, Black	BLSC	7A	Rare	Yellow
Scoter, Surf	SUSC	7A	Common	Yellow
Scoter, White-winged	WWSC	7A	Common	Yellow
Scoter, Unidentified	SCOT		Common	Yellow
Shearwater, Black-vented	BVSH	4	Rare	Yellow
Shearwater, Buller's	BULS	4	Uncommon	Yellow
Shearwater, Flesh-footed	FFSH	4	Uncommon	Yellow
Shearwater, Pink-footed	PFSH	4	Common	Yellow
Shearwater, Short-tailed	SHOS	4	Common	Yellow
Shearwater, Sooty	SOSH	4-5	Common	Yellow
Shearwater, Unidentified	SHEA		Common	Green
Shorebird, Unidentified	SHOR			Green
Shoveler, Northern	NOSH	5-6	Rare	Yellow
Skimmer, Black *	BLSK	4	Rare	Red
Snipe, Common	COSN		Rare	Yellow
Sora	SORA	2	Extremely Rare	Yellow
Sparrow, Golden-crowned	GCSP		Extremely Rare	Yellow
Sparrow, House	HOSP		Extremely Rare	Yellow
Sparrow, Song *	SOSP		Extremely Rare	Red
Sparrow, White-crowned	WCSP		Extremely Rare	Yellow
Sparrow, Unidentified	SPAR		Extremely Rare	Green
Starling, European	EUST		Extremely Rare	Yellow
Stilt, Black-necked	BNST		Rare	Yellow
Storm-petrel, Ashy *	ASSP	1B	Rare	Red

Species	Abbr.	Band	Likelihood	Bag Color
Storm-petrel, Black *	BLSP	1A	Rare	Red
Storm-petrel, Fork-tailed *	FTSP	1B	Rare	Red
Storm-petrel, Leach's	LHSP	1B	Rare	Yellow
Storm-petrel, Least	LTSP		Rare	Yellow
Storm-petrel, Unidentified	SPSP		Rare	Green
Surfbird	SURF	2	Rare	Yellow
Swallow, Bank **	BANS		Extremely Rare	Yellow
Swallow, Barn	BARS		Extremely Rare	Red
Swallow, Cliff	CLSW		Extremely Rare	Yellow
Swallow, Northern Rough-winged	NRWS		Extremely Rare	Yellow
Swallow, Violet-Green	VGSW		Extremely Rare	Yellow
Swallow, Unidentified	SWAL		Extremely Rare	Green
Swift	SWIF		Extremely Rare	Green
Tattler,Wandering	WATA	3-2	Rare	Yellow
Teal, American Green-winged	AGWT	4-4A	Rare	Yellow
Teal, Blue-winged	BWTE	5-4A	Rare	Yellow
Teal, Cinnamon	CITE	5-4A	Rare	Yellow
Tern, Arctic	ARTE	2-1A	Rare	Yellow
Tern, Black *	BLTE	2-1A	Extremely Rare	Red
Tern, Caspian	CATE	5-4A	Rare	Yellow
Tern, Common	COTE	2	Rare	Yellow
Tern, Elegant *	ELTE	3	Rare	Red
Tern, Forster's	FOTE	3	Rare	Yellow
Tern, Least ***	LETE	1A-1B	Rare	Red
Tern, Royal	ROYT	4A	Rare	Yellow
Tern, Unidentified	TERN		Rare	Green
Turnstone, Black	BLTU	2	Rare	Yellow
Turnstone, Ruddy	RUTU	2-3	Rare	Yellow
Turnstone, Unidentified	TURN		Rare	Green
Vulture, Turkey	TUVU		Extremely Rare	Yellow
Whimbrel	WHIM	4	Rare	Yellow
Wigeon, American	AMWI	6	Rare	Yellow
Willet	WILL	4	Rare	Yellow
Yellowlegs, Greater	GRYE	3-3B	Rare	Yellow
Yellowlegs, Lesser	LEYE	2	Extremely Rare	Yellow
Yellowlegs, Unidentified	YELL		Rare	Green

* Indicates a California Species of Special Concern
** Indicates a species with a threatened status
*** Indicates a species with endangered status
Band above the tarsometatarsal joint only.

Marine Mammal & Sea Turtle Species Codes and Status

Marine Mammal and sea turtle species (by common name), species status, and suggested name abbreviation are present Although no official four letter species codes exist for marine mammals and turtles, the convention used for birds was appl The first two letters of the first and last common name were used as the code. This table is not exhaustive, so it is possibl to encounter species not listed. This table has been generalized for all of coastal California.

Common Name	Code Abbr.		Common Name	Code Abbr.
Baleen Whales			**Seals & Sea Lions**	
Whale, Blue ***	BLWH		Fur Seal, Guadalupe **	GFSE
Whale, Fin ***	FIWH		Fur Seal, Northern	NFSE
Whale, Gray	GRWH		Sea Lion, California	CASL
Whale, Humpback ***	HUWH		Sea Lion, Steller **	STSL
Whale, Minke	MIWH		Otariid, Unidentified	OTAR
Whale, Sei ***	SEWH		Seal, Harbor	HASE
Whale, Baleen - Unidentified	WHALE		Seal, Northern Elephant	NESE
			Phocid, Unidentified	PHOC
Toothed Whales: Dolphins & Porpoises			Pinniped, Unidentified	PINN
Dolphin, Bottlenose	BODO			
Dolphin, Common	CODO		**Otters**	
Dolphin, Northern Right Whale	NRWD		Otter, River *	RIOT
Dolphin, Pacific White-sided	PWSD		Otter, Sea **	SEOT
Dolphin, Risso's	RIDO			
Dolphin, Unidentified	DOLP		**Sea Turtles**	
Porpoise, Dall's	DAPO		Turtle, Eastern Pacific Green ***	GRTU
Porpoise, Harbor	HAPO		Turtle, Hawksbill ***	HATU
Porpoise, Unidentified	PORP		Turtle, Leatherback ***	LETU
Whale, False Killer	FKWH		Turtle, Loggerhead ***	LOTU
Whale, Killer	KIWH		Turtle, Pacific (Olive) Ridley ***	ORTU
Whale, Dwarf Sperm	DSWH			
Whale, Pigmy Sperm	PSWH			
Whale, Sperm ***	SPWH			
Whale, Toothed - Unidentified	ODON			
Beaked Whales				
Beaked Whale, Baird's	BABW			
Beaked Whale, Cuvier's	CUBW			
Beaked Whale, Hubb's	HUBW			
Beaked Whale, Unidentified	BEAK			

* Indicates a California Species of Special Concern
** Indicates a species with a threatened status
*** Indicates a species with endangered status

APPENDIX IIIb

GENERAL WILDLIFE HAZING PLAN

FOR OIL SPILLS IN CALIFORNIA

I. Birds.

A. Considerations prior to beginning any hazing operation.

1. Are planned activities safe for workers involved and nearby workers?
2. Is there available "clean" habitat within a reasonable distance? If so, can it be made more attractive? (*e.g.* temporarily limiting access to people, boats or certain activities).
3. Is there adjacent or nearby contaminated habitat where hazed birds might end up? (*i.e.* are there significant negative possibilities)?
4. Hazing will be most effective if the entire area of concern can be hazed as continuously as possible. Generally, hit the area with a variety of devices/techniques, somewhat randomly varying them to control habituation. Back off as events dictate. As a general rule, do not start a hazing operation that cannot be maintained for the duration of the need.
5. Hazing would probably not be effective for areas larger than seven to 10 miles in length or diameter since so much equipment and person power would be required and the chance of hazing birds into contaminated habitat would be high.

B. Once the decision to haze has been made remember that each spill situation will be unique and preplanned hazing activities must be viewed as tentative at best. The pros and cons of every hazing operation must be evaluated in view of site and incident specific details and after consultation with local expertise where available.

C. Equipment that we believe has hazing potential, very roughly in order of importance.

1. Helicopter. Helicopters provide both visual and auditory deterrence and are arguably the single most effective hazing device. They are very noisy and can be flown offshore or onshore at any speed, including backwards or sideways, at very low altitude. The down side is that they are labor intensive and expensive to operate. They would probably be most useful for initiating and periodically reinforcing a hazing operation. (Approximate cost $500.00 per hour, some government owned and many available for hire in California.)

2. Propane cannon. Propane cannons provide a loud directional shotgun-like

noise by slowly filling a bellows with propane gas from a LPG tank then rapidly transferring this gas to a firing chamber and igniting it with a spark. The interval between detonations can be varied from three to 30 minutes. After deployment these devices operate automatically. They are inexpensive to operate and require little maintenance. The down side, common to most hazing devices, is that many species habituate to the noise within a day or two. They are most useful when used as one element of an integrated hazing scheme where they are moved frequently and interchanged with a variety of other devices. ($300.00 each, the California Department of Fish and Game - Office of Spill Prevention and Response (CDFG-OSPR) owns 17 and they are widely available for purchase in California.)

3. Phoenix Wailer. The Canadian built Phoenix Wailer is a relatively new electronic sound-generating device that broadcasts a programmable variety of sounds at up to 130 dB through four speakers, one in each direction, with an option of four additional remote speakers. The variety of sounds produced and the random nature of the broadcasts are reported to minimize habituation. A strobe light option is also available. The floating version of this device (Marine Wailer) has been successful in calm to moderate water situations. This device could function as the central unit of a shore-based integrated hazing scheme. ($2,100.00 to $5,000.00 each, available from Canada only.)

4. Breco Bird Scarer. This, relatively new, Canadian built, electronic sound-generating unit broadcasts random, frightening, up to 130 dB sounds through four speakers, one in each direction, for up to 72 hours of continuous operation with a lithium battery. The battery may be changed in approximately one hour. The completely sealed buoy design allows deployment from ship or helicopter in virtually any sea state. The Canadian Wildlife Service highly recommends this device. This is the only unmanned hazing tool that is available for offshore or open water use. Deployment of several of these devices at 1.5 km intervals might be effective for hazing birds from relatively large open water areas. (Initial tests by OSPR did not confirm the advertized effectiveness of this device). ($10,000.00 each, distributor in Cleveland, Ohio)

5. Shell crackers. These shotgun launched fire crackers are very effective against most species although they are labor intensive. They are an important tool in most integrated hazing schemes. ($80.00 per hundred, OSPR has small supply, readily available for purchase.)

6. Bird whistlers. These pistol launched noise makers screech for 250 to 300 feet. They are an important tool to most land-based or boat-based integrated hazing scheme. ($37.50 per hundred, OSPR has a small supply, readily

available.)

7. Bird bombs. Pistol launched noise makers that explode at the end of a 75 to 125 foot trajectory. Again, an important tool to rotate into many integrated hazing schemes. ($34.50 per hundred, OSPR has small supply, readily available.)

8. Reflective tape. Glittering in the wind, reflective tape results in deterrence of several bird species. Alternating placement and removal helps to avoid habituation. Important tool for shore-based hazing schemes. It is inexpensive and requires no maintenance. ($6.50 per 500 foot roll, OSPR has small supply, readily available.)

9. Weather balloons. Helium filled weather balloons in addition to their intrinsic hazing properties can be used to suspend other hazing tools (*e.g*. other balloons, eye spot balloons, reflective tape, predator models, etc.; three foot diameter model . $14.00 each).

10. ATVs. All terrain vehicles can produce auditory and visual deterrence where their use is suitable. They are excellent taxis for shuttling other hazing devices. (OSPR owns three, other CDFG units and federal agencies have several; readily available for purchase or rental.)

11. Boats. Small boats can be used directly to haze animals or as platforms for other hazing devices (e.g. Zonguns, available everywhere.)

12. Airboats. In shallow water and marsh areas, airboats, which again provide auditory as well as visual deterrence, may be used directly to move animals or as taxis to deploy, redistribute or service other hazing tools. (Several potentially available from CDFG and US Fish and Wildlife (USFWS) sources.)

13. AV Alarm or Bird Guard. These smaller electronic sound generating devices can be effective in small ground-based hazing schemes. Inexpensive and require little maintenance. (OSPR owns one, widely available for purchase.)

14. Kites. Kites and kites with predator pictures scare some birds. Occasional usefulness when wind conditions allow. ($10.00, widely available.)

15. Balloons. Air and/or helium filled balloons deployed periodically deter some species. Similar usefulness as reflective tape, kites and flags. (Widely available.)

16. Eye spot balloons. Helium filled balloons with a large eye on them deter some species. ($8.00 each, widely available.)

17. Predator models. Plastic and inflatable predator models, owls hawks and snakes can be rotated into a hazing scheme to deter some species. ($5.00 to 15.00, widely available.)

18. Planes. Small fixed wing aircraft have been used with success for hazing some species, but in general are not nearly as effective as helicopters. Like helicopters they are labor intensive and expensive to operate.

19. Human effigies. Scarecrows are effective on some species for short periods and could be rotated in, occasionally, in a hazing scheme.

20. Seal bombs. Under water fire crackers that can be used to haze marine mammals and perhaps diving birds. (Availability limited, OSPR owns two boxes of 72.)

21. UW sonic devices / Pingers. These devices introduces a sound into the water that is obnoxious to marine mammals. Habituation occurs rather quickly. ($3,000.00 to 4,000.00 each, availability uncertain.)

22. Live birds of prey. Falcons, flown by professional falconers, have been used to keep shore birds out of spill areas. (Limited availability, labor intensive).

23. Remotely controlled model planes or boats. Operators potentially available from model plane and model boat clubs. (Limited availability, labor intensive).

D. Equipment and personnel needs for various size spills.

1. Very small spill scenario (Up to five acres contaminated, *e.g*. overturned truck). One person full time, at least initially. One or two propane cannons, or one Phoenix Wailer (PW) if available. Shell crackers, bird whistlers and bird bombs, abundant reflective tape on poles or ropes, one to four three ft diameter weather balloons, one ATV if terrain is appropriate, one small boat or airboat if conditions are appropriate, one AV Alarm or Bird Guard if PW not available, kites, balloons, eye spot balloons, predator models and scarecrows could all be rotated into an integrated hazing scheme.

2. Small spill scenario (slick up to ½ mile in length or diameter, *e.g*. McGrath Lake).
One to three full time personnel, at least initially. All of the devices listed above

with two to five propane cannons. In very calm water one or two propane cannons could perhaps be mounted in small boats. If PW or Breco Bird Scarer (BBS) available, one or two could perhaps be used. A helicopter might be useful and appropriate initially.

3. Medium spill scenario, (½ mile to two miles in length or diameter, *e.g.* Bodega Bay).
Two to five full time personnel. One helicopter initially (first few hours) and as needed afterwards and all devices listed above including 5 to 15 propane cannons and two to four boats and or airboats. One or two PWs and three or four BBSs if available.

4. Large spill scenario, (Two to five or so miles in length or diameter, *e.g.* Humboldt Bay).
Four to 15 full time personnel. Two helicopters, five to 10 BBSs, five to 10 PWs, and all devices listed above including 15 to 40 propane cannons.

5. Open water scenario, (*e.g.* Exxon Heritage platform spill). Two to five full time personnel. One or two helicopters and one to 15 BBSs.

II. Marine mammals.

A. Same considerations as for birds in I. A. 1 - 4 above.

B. Hazing marine mammals has generally not been successful and would often be considered inappropriate. However, in some instances, it might be appropriate and doable to try to keep pinnipeds away from limited areas (*e.g.* a badly contaminated haul-out with abundant clean areas nearby). One to 10 personnel, one helicopter briefly, one or two boats, possibly an ATV, one BBS and/or one PW if available, one to several propane cannons, shell crackers, bird bombs and whistlers, reflective tape, weather balloons, kites, scarecrows, seal bombs and the underwater sonic device all might be effective if rotated in to a hazing scheme for harbor seals or sea lions.

III. Equipment availability and locations.

See OSPR Owned, CDFG Owned and Other Agency-Owned Hazing Equipment, (Attachment 1); Hazing Equipment Vendors, (Attachment 2); and Private and Agency-Owned Helicopters Potentially Available for Hazing, (Attachment 3).

OSPR, DFG, And Other Government Owned Hazing Equipment

Item	units	Location	First Contact:	Second Contact:
Airboat	1, ea.	DFG Butte Valley Mess Lake Road P.O. Box 249 Macdoel, CA 96058	Kit Novick **Phone** (530) 398-4627 **Cellular** **Pager** **Fax**	John Berengue (same phone#) **Phone** **Cellular** **Pager** **Fax**
ATV	2, ea.	DFG Grizzly Island WA 2548 Grizzly Island Road Suisun, CA 94585	Conrad Jones **Phone** (707) 425-3828 **Cellular** **Pager** **Fax** (707) 425-1403	Dennis Becker **Phone** **Cellular** **Pager** (707) 491-8481 **Fax**
Airboat	1, ea.	DFG Kern Wildlife Refuge	**Phone** **Cellular** **Pager** **Fax**	**Phone** **Cellular** **Pager** **Fax**
ATV	1, ea.	DFG Los Banos WA	**Phone** **Cellular** **Pager** **Fax**	**Phone** **Cellular** **Pager** **Fax**
Airboat	2, ea.	DFG Region 2 HQ 1701 Nimbus Road Rancho Cordova, CA 95670	**Phone** **Cellular** **Pager** **Fax**	**Phone** **Cellular** **Pager** **Fax**

Item	units	Location	First Contact:	Second Contact:
		DFG Region 4		
			Phone	**Phone**
			Cellular	**Cellular**
			Pager	**Pager**
			Fax	**Fax**
ATV	1, ea.			

Item	units	Location	First Contact:	Second Contact:
		DFG, OSPR at San Francisco Bay NWR	Danny Reno	Randy Imai
			Phone (707) 554-1654	**Phone** (916) 324-0000
			Cellular (916) 834-1306	**Cellular** (916) 998-8261
			Pager (707) 288-9959	**Pager** (916) 360-2232
			Fax (707) 554-1654	**Fax** (916) 324-8829
Airboat	1, ea.			

Item	units	Location	First Contact:	Second Contact:
		FWS LE District 3		
			Phone	**Phone**
			Cellular	**Cellular**
			Pager	**Pager**
			Fax	**Fax**
Zongun	2, ea.			

Item	units	Location	First Contact:	Second Contact:
		Kern NWR		
			Phone	**Phone**
			Cellular	**Cellular**
			Pager	**Pager**
			Fax	**Fax**
Airboat	2, ea.			
ATV	2, ea.			
Zongun	1, ea.			

Item	units	Location	First Contact:	Second Contact:
		Klamath Basin NWR	Tim Burton	
			Phone (530) 459-3164	**Phone**
			Cellular	**Cellular**
			Pager	**Pager**
			Fax	**Fax**
Airboat	4, ea.			
ATV	5, ea.			
Zongun	4, ea.			

Item	units	Location	First Contact:	Second Contact:
		MWVCRC 1451 Shaffer Road Santa Cruz, CA 95060	Tim Williamson **Phone** (831) 469-1728 **Cellular** (831) 315-6138 **Pager** (408) 939-5488 **Fax** (831) 469-1723	Jack Ames **Phone** (831) 469-1740 **Cellular** (831) 234-1306 **Pager** (408) 939-5489 **Fax** (831) 469-1723
12 Gauge Shotgun	3, ea.			
ATV	3, ea.			
AV Alarm	1, ea.			
Big Eye Balloons	2, ea.			
Bird Whistlers	300, ea.			
Cracker Shells	Lots, ea.			
Launcher Pistol	1, ea.			
Owl Decoys	2, ea.			
Seal Bombs	144, ea.			
Weather balloons	6, ea.			
Zongun	9, ea.			

Item	units	Location	First Contact:	Second Contact:
		Napa Marsh	**Phone** **Cellular** **Pager** **Fax**	**Phone** **Cellular** **Pager** **Fax**
Airboat	1, ea.			

Item	units	Location	First Contact:	Second Contact:
		OSPR Equipment Trailer 1 4949 Viewridge Ave. San Diego, CA 92123	Robin Lewis **Phone** (619) 467-4215 **Cellular** (916) 927-0507 **Pager** (619) 893-2969 **Fax** (619) 467-4299	Tom Napoli **Phone** (562) 590-4822 **Cellular** (562) 413-5833 **Pager** (562) 300-2488 **Fax** (562) 499-6373
Cracker Shells	100 ea.			
PVC Pipe Poles	10, 8' x 1"			
Reflective Tape	4, 500' Rolls			
Zongun	2, ea.			

Item	units	Location	First Contact:	Second Contact:
		OSPR Equipment Trailer 2 820 28th Street Paso Robles, CA 93446	Melissa Boggs **Phone** (805) 772-1756 **Cellular** (805) 441-6433 **Pager** (916) 326-0248 **Fax** (805) 772-7569	Dutch Huckaby **Phone** (805) 466-1753 **Cellular** (805) 680-7390 **Pager** (805) 399-7412 **Fax**
Cracker Shells	100, ea.			
PVC Pipe Poles	10, ea. 8' x 1"			
Reflective Tape	500' Roll			
Zongun	2, ea.			

Item	units	Location	First Contact:	Second Contact:
		OSPR Equipment Trailer 3 1700 K Street Sacramento, CA 95814	Randy Imai **Phone** (916) 324-0000 **Cellular** **Pager** (916) 360-2232 **Fax** (916) 324-8829	Paul Kelly **Phone** (916) 323-4335 **Cellular** (916) 798-1758 **Pager** (916) 328-3201 **Fax** (916) 324-8829
Cracker Shells	100, ea.			
Phoenix Wailer	2, ea.			
PVC Pipe Poles	10, 8' x 1"			
Reflective Tape	4, 500' Rolls			
Zongun	2, ea.			

Item	units	Location	First Contact:	Second Contact:
		OSPR Equipment Trailer 4 619 Second Street Eureka, CA 95501	Joe Lesh **Phone** (707) 441-5752 **Cellular** (707) 499-1124 **Pager** (707) 444-6862 **Fax** (707) 441-5753	Linda Broadman **Phone** (707) 441-5752 **Cellular** **Pager** (707) 288-8601 **Fax**
Cracker Shells	100, ea.			
PVC Pipe Poles	10, 8' x 1"			
Reflective Tape	4, 500' Rolls			
Zongun	2, ea.			

Item	units	Location	First Contact:	Second Contact:
		Sacramento NWR	**Phone** **Cellular** **Pager** **Fax**	**Phone** **Cellular** **Pager** **Fax**
Airboat	5, ea.			
ATV	4, ea.			

Item	units	Location	First Contact:	Second Contact:
		Salton Sea	Pam Cheray	Miya Moco
			Phone	**Phone**
			Cellular (760) 996-4498	**Cellular**
			Pager	**Pager**
			Fax (760) 359-0709	**Fax**
ATV	1, ea.			

Item	units	Location	First Contact:	Second Contact:
		Salton Sea NWR		
			Phone	**Phone**
			Cellular	**Cellular**
			Pager	**Pager**
			Fax	**Fax**
Airboat	2, ea.			
Zongun	3, ea.			

Item	units	Location	First Contact:	Second Contact:
		San Francisco Bay NWR		
			Phone	**Phone**
			Cellular	**Cellular**
			Pager	**Pager**
			Fax	**Fax**
Airboat	1, ea.			
ATV	4, ea.			
Zongun	12, ea.			

Item	units	Location	First Contact:	Second Contact:
		San Luis NWR		
			Phone	**Phone**
			Cellular	**Cellular**
			Pager	**Pager**
			Fax	**Fax**
ATV	2, ea.			
Zongun	2, ea.			

Hazing Equipment Vendors in California

VENDOR

Ag Supply, Inc.
1435 Simspon Way
Escondito, CA 92025

Contact: Chris or Don
Phone: (619) 741-0066
Fax: (619) 741-9412

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪	**UW Sonic Device**	☐
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐	**Seal Bombs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☑	**Strobe Lights**	☐	**Breco Bird Scarer**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐	**Phoenix Wailer**	☐

Arnold's
6956 Hwy 20
Colusa, CA 95923

Contact: Chuch or Louie
Phone: (916) 458-5125
Fax: (916) 458-5035

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☑	**Human Effigies**	▪	**UW Sonic Device**	☐
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐	**Seal Bombs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☐	**Strobe Lights**	☑	**Breco Bird Scarer**	☐
Bird Whistlers	☑	**Weather Balloons**	☑	**Predator Model**	☐	**Shot Guns**	☐	**Phoenix Wailer**	☐

Cal Ranch Management
356 Truesdale Road
Shandon, CA 93461

Contact: Laura or Debbie
Phone: (805) 238-5703
Fax: (805) 239-9082

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪	**UW Sonic Device**	☐
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐	**Seal Bombs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☑	**Strobe Lights**	☐	**Breco Bird Scarer**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐	**Phoenix Wailer**	☐

VENDOR

Colusa County Farm Supply
5873 Fresh Water Road
Williams, CA 95987

Contact: Lester
Phone: (916) 473-2851
Fax: (916) 473-2216

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☑	**Human Effigies**	☐
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Del Don Chemical
810 E Street
Patterson, CA 95363

Contact: Lee Del Don
Phone: (209) 894-6404
Fax: (209) 894-6402

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☑	**Human Effigies**	☐
Shell Crackers	☐	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Gridley Growers
700 Hazel Street
Gridley, CA 95948

Contact: Dave or Bill
Phone: (916) 846-5666
Fax: (916) 846-5078

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	☐
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☑	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

VENDOR

H.C. Shaw Co.
P.O. Box 2168
Stockton, CA 95205

Contact: Brenda Rohrer
Phone: (209) 983-8484
Fax: (209) 983-8449

Propane cannon	☑	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	▪	**UW Sonic Device**	☐
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☐	**Airhonrs**	☐	**Seal Bombs**	☐
Bird Bombs	☐	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐	**Breco Bird Scarer**	☐
Bird Whistlers	☐	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐	**Phoenix Wailer**	☐

Harrison Hardware
1051 Edison
Santa Ynez, CA 93460

Contact: Reca
Phone: (805) 688-4614
Fax:

Propane cannon	☐	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	▪	**UW Sonic Device**	☐
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☑	**Airhonrs**	☐	**Seal Bombs**	☐
Bird Bombs	☐	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐	**Breco Bird Scarer**	☐
Bird Whistlers	☐	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐	**Phoenix Wailer**	☐

Hirahara Seeds
450 Douglass lane
Woodland, CA 95776

Contact: Merrily or Mack
Phone: (916) 662-8626
Fax: (916) 662-2137

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☑	**Human Effigies**	▪	**UW Sonic Device**	☐
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☑	**Seal Bombs**	☐
Bird Bombs	☑	**Eye Balloons**	☐	**Kites**	☑	**Strobe Lights**	☐	**Breco Bird Scarer**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐	**Phoenix Wailer**	☐

VENDOR

Hyde Products
28045 Ranney Parkway
Cleveland, OH 4415-1188

Contact: Jim Mackey
Phone: (216) 871-4885 ext.
Fax: (216) 871-1143

Propane cannon	☐	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☐	**Airhonrs**	☐
Bird Bombs	☐	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☐	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐	**Seal Bombs**	☐
Breco Bird Scarer	☑	**Phoenix Wailer**	☐

Kern Ag Supply
1305 Bear Mtn. Blvd.
Arvin, CA 93203

Contact: Ron Massey or Javie
Phone: (805) 854-4467
Fax: (805) 854-5276

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☑	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☑
Bird Bombs	☑	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐	**Seal Bombs**	☐
Breco Bird Scarer	☐	**Phoenix Wailer**	☐

Lockhart Seed Company
3 Noth Wilson Way
Stockton, CA 95201

Contact: Steve Auten
Phone: (209) 466-4401
Fax: (209) 466-9766

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☐	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐	**Seal Bombs**	☐
Breco Bird Scarer	☐	**Phoenix Wailer**	☐

VENDOR

McAuthur Farm Supply
Hwy 299 East
McAurthur, CA 96056

Contact: Tim Babcock
Phone: (916) 336-6133
Fax: (916) 336-6355

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Miner's Ace Hardware
186 Station Way
Arroyo Grande, CA 93420

Contact: Tammy
Phone: (805) 489-9100
Fax: (805) 489-0346

Propane cannon	☐	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☑	**Airhonrs**	☑
Bird Bombs	☐	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☐	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Moss Landing Industrial Marine Supply
Moss Landing Road & Sandholdt

Contact: Russel
Phone: (408) 633-2133
Fax:

Propane cannon	☐	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☐	**Airhonrs**	☐
Bird Bombs	☐	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☐	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☑
Phoenix Wailer	☐

VENDOR

Novelynx Corp.
4055 Grass Valley Hwy, #102
Auburn, CA 95603
Contact: Bill Begg
Phone: (916) 477-5226
Fax: (916) 477-8339

Propane cannon	☐	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	☐
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☐	**Airhonrs**	☐
Bird Bombs	☐	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☐	**Weather Balloons**	☑	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐		
Seal Bombs	☐		
Breco Bird Scarer	☐		
Phoenix Wailer	☐		

Peaceful Valley Farm Supply
110 Springhill Drive #2
Grass Valley, CA 95945
Contact: Kyle or Phil
Phone: (916) 272-4769
Fax: (916) 272-4797

Propane cannon	☐	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	☐
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☐	**Airhonrs**	☐
Bird Bombs	☐	**Eye Balloons**	☑	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☐	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐		
Seal Bombs	☐		
Breco Bird Scarer	☐		
Phoenix Wailer	☐		

Phoenix Agritech (Canada)
P.O. Box 10
Truno, NS
82N5B6
Contact: Bruce Blacklock
Phone: (902) 662-2444
Fax: (902) 662-2888

Propane cannon	☐	**Launcher Pistols**	☐	**Flags**	☐	**Human Effigies**	☐
Shell Crackers	☐	**AV Alarm**	☐	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☐	**Eye Balloons**	☐	**Kites**	☑	**Strobe Lights**	☐
Bird Whistlers	☐	**Weather Balloons**	☑	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐		
Seal Bombs	☐		
Breco Bird Scarer	☐		
Phoenix Wailer	☑		

VENDOR

Santa Clara Seeds
1025 South Rose Ave
Oxnard, CA 93030

Contact: John Ortiz or Jim
Phone: (805) 487-9805
Fax: (805) 487-2213

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Sutton Agricultural
Enterprises, Inc.
746 Virtin Ave
Salinas, CA 93901

Contact: Judi Hoelscher
Phone: (831) 422-9693
Fax: (831) 422-4201

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☑	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☑	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Veg Growers Supply
280 North Dogwood Rd.
El Centro, CA 92244

Contact: Rick
Phone: (619) 352-2133
Fax: (619) 352-2154

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

VENDOR

W.J. Vogel Co.
860 Main Street
Brawley, CA 92227

Contact: Trevor
Phone: (619) 344-0310
Fax: (619) 344-0641

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☐	**Airhonrs**	☑
Bird Bombs	☑	**Eye Balloons**	☐	**Kites**	☐	**Strobe Lights**	☑
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☐	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Waterford Farm Supply
304 "F" Street
Waterford, CA 95386

Contact: Mike Stine
Phone: (209) 874-2391
Fax: (209) 874-2393

Propane cannon	☐	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☐	**Strobe Lights**	☑
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

Wildlife Control Technology
2501 North Sunnyside, #103
Fresno, CA 93727

Contact: Mike Taber
Phone: (209) 294-0262
Fax: (209) 294-0632

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☐	**Human Effigies**	▪
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☐	**Strobe Lights**	☑
Bird Whistlers	☑	**Weather Balloons**	☑	**Predator Model**	☑	**Shot Guns**	☐

UW Sonic Device	☐
Seal Bombs	☐
Breco Bird Scarer	☐
Phoenix Wailer	☐

VENDOR

Wildlife Management Techniques
1146 West Harter
Visalia, CA 93277

Contact: Tom Clavenger

Phone: (805) 838-7525

Fax:

Propane cannon	☑	**Launcher Pistols**	☑	**Flags**	☑	**Human Effigies**	☐	**UW Sonic Device**	☐
Shell Crackers	☑	**AV Alarm**	☑	**Reflective Tape**	☑	**Airhonrs**	☑	**Seal Bombs**	☐
Bird Bombs	☑	**Eye Balloons**	☑	**Kites**	☑	**Strobe Lights**	☐	**Breco Bird Scarer**	☐
Bird Whistlers	☑	**Weather Balloons**	☐	**Predator Model**	☑	**Shot Guns**	☐	**Phoenix Wailer**	☐

Private & Agency Owned Helicopters as a Possibility for Hazing

Company	Contact	Address	Phone	Pager	Fax	Helicopters	Passengers
Air One Helicopters, Inc.							
	Don Mott Bill Blyth	1144 Coleman Ave. San Jose, CA 95110	(408) 292-5043		(408) 292-5622	4) 350B 1) S58T 2) 212	5 9 9
Air Resources Helicopters, Inc.							
	Chuck McFarland Cindy McFarland Randy Cormey	19401 Campus Dr.,Hanger 7 Santa Ana, CA 92707	(714) 442-0480		(714) 442-0483	1) 350B1 1) 350B2	5 5
Airis Helicopters, Ltd.							
	Paul Collins	1138 Coleman Ave. San Jose, CA 95110	(408) 998-3266		(408) 998-4061	2) 500D 1) 206B3 2) 350B 3) S58T 1) 315B	4 4 5 9 4
Aspen Helicopters, Inc.							
	Barry Hanson Mike Bashlor	2899 West 5th Street Oxnard, CA 93030	(805) 985-5416		(805) 985-7327	6) 206L3 2) 206B	6 4
California Department of Forestry							
	Marshall Graves Cecil Gill	3841 Bazley Way Mather, CA 95655	(916) 255-4483		(916) 255-4154	10) UH-1H	9

Company	Contact	Address	Phone	Pager	Fax	Helicopters	Passengers
Civic Helicopters, Inc.							
	Chin Yi Tu Melba Ellis Mark Moreno	2192 H Palomar Airport Rd. Carlsbad, CA 92008	(619) 438-8424		(619) 438-0451	2) 300C 1) 206 1) 500	2 4 4
Clark Helicopters							
	James Clark Lynn Clark	545 Kennedy Street, G-1 El Cajon, CA 92020	(619) 449-0501		(619) 449-0550	1) 500D	4
Coorporate Helicopters of San Diego							
	Ivor Shier	2904 Pacific Hwy. San Diego, CA 92101	(619) 291-4356			2) 206B3 1) 206L3 1) R22 1) 350BA 1) 421B	4 6 1 5 6
Crane Helicopter Services, Inc.							
	Linda Lotspeich Steven Lotspeich	938 Forest Lane Alamo, CA 94507	(510) 820-0174		(510) 831-9507	1) 204B	5
East Bay Regional Parks							
	Officer Staub	17930 Lake Chabot Road Castro Valley, CA 94546	(510) 881-1833			2)	

Company	Contact	Address	Phone	Pager	Fax	Helicopters	Passengers
Federico Helicopters, Inc.							
	Leonardo Federico Grant Giocalone	4955 E Anderson, Suite 115 Fresno, CA 93927-1521	(209) 454-7683			2) S55T 1) UH1B 1) UH1H205 1) S58	7 5 9 9
Helicare							
	Niels Andrews Ove Larson	P.O. Box 3138 Salinas, CA 93912	(408) 422-2188		(408) 757-2069	2) 206B2	4
Helicopter Adventures, Inc.							
	Patrick Corr Gordon Cox	81 John Glenn Drive Concord, CA 94520	(510) 686-2917	(415) 998-9105	(510) 686-2986	5) R22 13) 300CB	1 1
Helinet Aviation Services							
	Gary Farrell Gary Gunther	16425 Hart Street, Hangar 2 Van Nuys, CA 91406	(818) 902-0229		(818) 902-9287	1) 206L1 4) 296B3 1) 206B2	6 4 4
Helistream, Inc.							
	Rod Anderson	3000 Airway, Suite 200 Costa Mesa, CA 92626	(714) 622-3163		(714) 662-1687	1) R44 6) R22 1) 206L	3 1 6

Company	Contact	Address	Phone	Pager	Fax	Helicopters	Passengers
Helitac Aviation, Inc.							
	M.V. Dreesman	1910 W. Sunset Blvd., #900 Los Angeles, CA 90026	(213) 483-6898		(213) 483-4185	1) 206B 1) 206L 1) 500	4 6 4
Hughs Aircraft Company							
	Dale House Joel Morris	P.O. Box 7651 Van Nuys, CA 91409	(818) 375-4501		(818) 375-4508	1) 222A	6
Island Express Helicopters							
	Ken Putman John Moore Gary Albin	P.O. Box 2249 Avalon, CA 90704	(310) 510-2525		(310) 510-9671	3) 350D	5
LA, City of (Department of Water and Power)							
	Gary Yates	8060 Balboa Blvd. Van Nuys, CA 91406	(818) 902-3060		(818) 756-9134	11) 206B 3) 206L3 2) 205A1 3) 412 4) 350B1 1) UH1B	4 6 9 9 5 5
Landell's Aviation							
	Elaine, Steve	39873 Silver Moon Trail Desert Hot Springs, CA 92240	(619) 329-6468			4) 206B3	4

Company	Contact	Address	Phone	Pager	Fax	Helicopters	Passengers
Pasadena Police Dept. Helicopter Sect.							
	David Harris Glenn Beckley	207 North Garfield Ave Pasadena, CA 91101	(818) 404-4625		(818) 398-8424	4) F28F 1) 206B3	2 4
Pritchard Corporate Air Services, Inc.							
	Grant Pritchard Scott Pritchard	P.O. Box 2358 Novato, CA 94948-2458	(415) 898-5142		(415) 898-5142	1) 47G2	1
Redding Air Service, Inc.							
	Burt Train Doug Pryde David Burlingame	6831 Airway Ave. Redding, CA 96002	(916) 221-2851		(916) 221-3728	2) 206B3 1) 350BA 1) 206L3	4 5 6
Sacramento Executive Helicopters, Inc.							
	John or Tracy Hamilton	6107 Freeport Blvd. Sacramento, CA 95822	(916) 424-9691		(916) 424-0304	1) 206B3 4) R22	4 1
Verticare							
	James Cheatham	P.O. Box 5127 Salinas, CA 93915-5127	(831) 422-0685			1) R22B	1

Company	Contact	Address	Phone	Pager	Fax	Helicopters	Passengers
Western Helicopters, Inc.							
	Dick Silva Peter Gillies	P.O. Box 579 Rialto, CA 92377	(909) 829-1051		(909) 829-4904	1) 500D 2) 300C	4 1
Western Operations, Inc.							
	RL Green Peter Gillies Roger Borgen	P.O. Box 2450 Rialto, CA 92377	(909) 829-1056		(909) 829-2550	1) 500D 1) 300C 1) 206B3	4 1 4
Whirlybirds, Inc.							
	Charles Aby Lew Phillips Gordon Cox	24658 Aviation Ave. Davis, CA 95616-9408	(800) 676-0110		(530) 750-0147	2) UH12 1) FH100B 1) 47G4A	 3 2

APPENDIX IIIc

SEA OTTER - OIL SPILL CONTINGENCY PLAN FOR CALIFORNIA

General

The decision to conduct any capture and rehabilitation effort for sea otters will be made by the Wildlife Branch Director in the Unified Command (UC) after consultation with California Department of Fish and Game - Office of Spill Prevention and Response (CDFG-OSPR) and the U.S. Fish and Wildlife Service (USFWS). The Oiled Wildlife Care Network (OWCN) will make all personnel call-outs. Capture and handling of sea otters will be by OWCN or CDFG trained and approved personnel only.

Facilities

Five facilities with extensive marine mammal care capability and expertise, as well as Duke Energy Power Services' (formerly PG&E) electricity generation plant in Moss Landing and the Golden Gate National Recreation Area (GGNRA) at Horseshoe Bay, will cooperate in a cleaning and rehabilitation program for sea otters. The five are: 1) CDFG's Marine Wildlife Veterinary Care and Research Center (MWVCRC, Santa Cruz County), up to 125 otters; 2) Monterey Bay Aquarium (MBA, Monterey County), 10 otters; 3) The Marine Mammal Center (TMMC, Marin County), 10 otters; 4) Sea World (San Diego County), 10 otters; and 5) Long Marine Laboratory (Santa Cruz County), 5 otters. Floating, holding pens for holding larger numbers of rehabilitated or preemptively caught sea otters may be installed at Moss Landing Harbor (Monterey County) in cooperation with Duke Energy Power Services or at Horseshoe Bay (Marin County) in cooperation with the National Park Service and the US Army.

Capture and Transport

Capture and transport will be conducted only by OWCN and UC approved personnel. Each captured sea otter will be flipper tagged (with Temple, original, cattle size ear tags) and PIT tagged (passive integrated transponder) subcutaneously in the loose skin between the right heel and the tail. Captives will be held and transported in #300 or #400 sky kennels fitted with a raised bottom grate. Shaved ice or any other form of fresh water ice (to combat dehydration) and a chew toy or toys (to combat tooth damage) would usually be provided in transport kennels. Food should be offered only if transport time is to be more than four or five hours (to lessen additional fur fouling). **Sea otters should not be taken into commercial veterinary facilities containing domestic pets**. Upon arrival at the cleaning center each animal will be logged-in through the Intake Unit at a wildlife processing center while maintaining chain of custody.

Cleaning

Oiled otters arriving at an OWCN approved rehabilitation facility will be placed in a quiet area, examined and possibly treated by the veterinarian(s) and/or animal health technicians (AHTs) on duty. Fresh water and/or fresh water ice and perhaps food will be made available during this period. Only when a veterinarian on duty determines that the otter is stable will cleaning procedures be initiated. A

variety of data sheets including an individual medical record will accompany each otter through the cleaning and rehabilitation process. The importance of careful documentation can not be overemphasized.

Cleaning procedures, modified appropriately by site specific equipment availability, are as follows. Sea otters to be cleaned will be anesthetized using fentanyl and diazepam or similar drugs (or perhaps isoflurane gas) by an experienced veterinarian and placed on the washing table. Ideally, washing tables will be equipped with three or four well aerated nozzles dispensing temperature controlled (80 to 90^{o} F), softened, fresh water. Washing will constitute a cyclic wash, rinse, wash, rinse etc., with a 1 to 16 dilution of Dawn dish washing detergent and water. Four to six people are required per washing table, one (with heavy gloves) specifically to hold the head-paws area. Depending on the degree of oiling, washing will take from 40 minutes to one hour.

The oily wash water waste should be held in a container for testing by the local waste water treatment plant to determine if the small quantity of oil present may be disposed of along with the rinse water. The first wash water will probably not amount to more than 25 gallons per otter. The total quantity of oil on a heavily contaminated sea otter will be very small. Small quantities of petroleum residues are allowed in domestic sewage. Second and additional washes may, without question, be directed into the domestic sewer system.

Following the initial wash each animal will be rinsed for 40 minutes to one hour. Animals will then be towel dried and moved to a drying table. Ideally, each drying table will be serviced by three or four air hoses with nozzles which deliver high volume, dried, temperature controlled air. Following drying, each animal will be reversed from the anesthetic (or removed from isoflurane) and placed in a large, slat-floor kennel with a sliding top (intensive care cage) or other easy Vet/AHT access pen for intensive care monitoring.

When fully recovered from anesthesia, and if its medical condition allows, each otter will be moved to one of the “two-otter pen-pools” (1 pool, 2 haul-outs) which will be serviced by abundant, clean, chlorine free salt water. As health and fur condition improve, otters may be moved to larger pools. All pools will have abundant haul-out space. It will generally take approximately seven to ten days for the fur to recover its water repellency.

Oily equipment (*e.g.* cages and dip nets) should be wiped down thoroughly with oil sorbent pads then washed with detergent and water and disinfected with a chlorine solution. Cages etc. should be steam cleaned in a proper decontamination area. All oil contaminated solid waste must be treated as hazardous waste and disposed of properly.

Feeding

Food will be offered every two to three hours around the clock for animals in intensive care and four or five times a day for animals once they enter a two otter pool. Food will be prepared in each facility's existing food room closely coordinated by that facility's food room supervisor. Food offered will

amount to 10 to 15 pounds per day per otter and consist of recently thawed clams, shrimps, sea urchins, market crabs, fish fillets, mussels, abalones, squids etc. as available. The ink sack should be removed from each squid to prevent confusion in diagnosing enteritis. Exoskeletons and squid pens may have to be removed to prevent pool drain clogging. Uneaten food will be removed and discarded prior to each feeding to insure that spoiled food is not consumed. Notes on amount of food consumed, behavior and coat condition will be kept on each otter, and data sheets will be filled out at regular intervals.

Holding

Rehabilitated otters will be held in large pools (8 to 20 feet in diameter and 2 to 4 feet deep) and/or floating holding pens (12 feet by 12 feet by 6 feet high or 15 feet by 20 feet by 8 feet high) for the minimum time possible. As soon as the contamination in the habitat has been reduced sufficiently, they will be released.

Release

Prior to release the danger of introducing disease into the wild population will be examined and due consideration will be given to possible quarantine protocols. Release will be as soon as possible (to minimize the disease potential, captivity stress and human habituation) and as near the original capture site as practicable (to reduce dispersal and thereby increase survival).

Floating Pens

The 70+ foot long dock at the entrance to the salt water intake structures for Duke Energy Power Services' electric power plant, units 1 through 5, in Moss Landing Harbor, provides an excellent place to moor floating holding pens for sea otters. There is also ample shore-side space to assemble and launch floating pens. The entire area is fenced and the access road is controlled by a locked gate. Several floating pens may be tied directly to the existing dock. Observation blinds can easily be constructed using existing fencing, plywood and tarps.

An alternative or secondary site for mooring floating holding pens is at Horseshoe Bay, near the north side of the Golden Gate Bridge a few miles away from TMMC and within the GGNRA. The National Park Service responded favorably to an inquiry about using the area for sea otter rehabilitation and the US Army is issuing a permit. In a spill situation where Moss Landing was affected, Horseshoe Bay would become the preferred site. If sea otters were being rehabilitated at TMMC, then Horseshoe Bay might be used in addition to the Moss Landing site.

APPENDIX IV

FORMS

Reconnaissance Group:

a. Wildlife Field Reconnaissance Survey Form -
Shoreline or On-Water - 2 pages

Processing Group:

See Appendix IIIa, "Wildlife Intake Unit Protocols," for all forms used in this group.

Veterinary Services Group:

b. OWCN Oiled Bird Intake Form

c. OWCN Oiled Bird Daily Progress Form

Wildlife Field Reconnaissance Form – Shoreline or On Water Observations

1. Incident Name: _____ **2. Observation Team**: _____

3. Date: _____ **4. Time Start**: _____ **5. Time End**: _____

6. Segment Name: _____ **7. Segment No.**: _____

8. Survey Length: _____ ft. **9. Survey Width**: _____ ft. **10. Latitude**: _____ N **11. Longitude**: _____ W

12. Survey Mode: Foot ❑ Vehicle ❑ Boat/Ship ❑ Airplane ❑ Helicopter ❑ **13. Tide Table Data at Start of Survey**: _____ ft.

14. Weather: _____ **15. Beaufort Scale**: _____ **16. Visibility**: < 0.1 mi.❑ 0.5 mi.❑ 1.0 mi.❑ > 1.0 mi.❑

(Describe Briefly) (See Chart) (< 160 m) (800 m) (1.6 km) (> 1.6 km)

17. Round Trip Mileage: _____(miles) **18. Round Trip Driving Time**: _____(hours) **19. Trip Prep Time**: _____(hours)

Species Name (See Four Letter Code Sheet)	No. of Animals	Condition Live/Dead	Oiled Yes/No	Scavenged Yes/No	Band or Tag No.	Photo Yes/No	Toe Clipped Yes/No	Comments on Wildlife (recoverable, catch technique, etc.)

Wildlife Field Reconnaissance Form – Shoreline or On Water Observations

Species Name (See Four Letter Code Sheet)	No. of Animals	Condition Live/Dead	Oiled Yes/No	Scavenged Yes/No	Band or Tag No.	Photo Yes/No	Toe Clipped Yes/No	Comments on Wildlife (recoverable, catch technique, etc.)

OWCN Oiled Bird Intake Form

Spill and Capture Information

Barcode

Spill Name _____ Animal Intake Number _____

Intake Date/Time _____ Examiner's signature _____

Animal and Physical Exam Information

Temporary Band No. _____ Species _____

Type of Oil **Crude** **Refined** **Veg/Fish** **Other** Area Oiled **Entire** **Waterline** **Body** **Spotty**

External Oil Visible **Yes** **No**[a] External Oil Not Visible but Bird is Oiled? **Yes** **No**[b]

Oil not visible but bird oiled based on one or more of the following (circle): **smell oil** **plumage malaligned or parted** **sticky texture** **wet** **skin burns**

Percent Bird Oiled _____ % or **sheen?** Depth of oiling **Deep** **Moderate** **Surface**

Age **Chick** **Sub-Adult** **Adult** **Unknown** Sex **Male** **Female** **Unknown**

Weight _____ g. Temperature _____ °F Dehydration _____ %

Heart Rate _____ /min. Resp. Rate _____ /min. CRT _____ sec.

Attitude **BAR** **QAR** **Nonresponsive** Body Condition **Normal** **Thin** **Emaciated**

Head/Mouth/Bill	NSL	Other _____
Eyes/Ears	NSL	Other _____
Heart/Lungs	NSL	Other _____
Gastrointestinal	NSL	Other _____
Musculo-skeletal	NSL	Other _____
Integument	NSL	Other _____

Intake Diagnostics and Initial Plan

PCV _____ BC _____ TP _____ BG _____ Blood Taken? **Crit** **LTT** **RTT** **GTT**

Initial Feeding Plan _____ Toxiban _____ ml given @ _____

Treatment Plan _____ Itraconazole? **No** **Yes** Dose _____

Date Washed _____ Date(s) Rewashed _____

Disposition Information

Disposition Status **Released** **Died** **Euthanized** **Transferred** **Placed** Date _____

Disposition Location _____ Federal Band No. _____

[a]May be diesel, jet fuel, gasoline, vegetable oil, fish oil, or other.
[b]Examiner cannot smell oil, feel oil, plumage intact (not wet or parted).

Revised 6/15/99

OWCN Oiled Bird Daily Progress Form

Spill Name _____ *Log#/Temp. Band#* _____ *Species* _____

Date	*Weight*	*PCV*	*BC*	*TP*	*BG*	*Treatment and Progress Notes*	*Init.*

Page ___ *of* _____